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Effect of labeling of special education students on the perception of contact versus non-contact normal peers

J. William Cook
The University of Montana

THE EFFECT OF LABELING OF SPECIAL EDUCATION STUDENTS ON THE PERCEPTION OF CONTACT VERSUS NON-CONTACT NORMAL PEERS

by

J. William Cook

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Approved by:

Janet P. Wollersheim
Chairman, Board of Examiners

John M. Stewart
Dean, Graduate School

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Chapter I

INTRODUCTION

The decade of the sixties has witnessed profound changes in society's awareness and treatment of those individuals who are mentally retarded, a group of persons that Hall (1970) reported numbers over five million in the United States. For the purposes of this study, the author used the definition of the American Association on Mental Deficiency (Heber, 1961), which says that the mentally retarded have a demonstrated deficiency along two dimensions: "measured intelligence" and "adaptive behavior."

In the past such persons have been segregated from the mainstream of society by placement in institutions, or kept at home with little to do and regarded by family and friends as objects of shame and embarrassment. As a result of factors such as the personal involvement of prominent political figures (e.g., the Kennedy and Humphrey families), a number of changes have occurred. Federal funds have provided for more trained personnel and expansion and improvement of available services. Institutions are emphasizing community placement and integration rather than segregation. Of central importance in investigating the area of mental retardation, then, is an understanding and awareness of the attitudes and behaviors of persons who are not mentally retarded.

A primary vehicle in this change of perspective has been the field of special education. Various persons in this field have advocated some

form of integration of mentally retarded children into regular classes and school programs wherever possible (Dunn, 1968; Haring, Stern and Cruickshank, 1958; Kirk, 1962; Shattuck, 1946; Trippe, 1959). Although progress has been slow, Shattuck (1946) correctly prophesied the position of most contemporaries in the following statement:

> A major handicap of the nontypical child, the more extreme deviate, is the attitude of the general population towards him. Even greater than the abnormal's need for normal associates is the need of the bulk of human beings to know the dull, crippled, blind, deaf, mildly neurotic child well enough to accept him (p. 237).

Thus, the benefits of social contact between retarded and normal pupils in a school situation are seen to be twofold: enhancing the personal and social growth of the mentally retarded, and promoting positive attitudinal and behavioral changes of the non-retarded toward their retarded peers.

However, while these benefits are commonly assumed, there has been little research in this area and results have been inconclusive. Thus, the first purpose of the present study was to investigate the contact variable in order to compare children who have had social contact with mentally retarded students in school with those students who have not had this contact.

A second purpose of the study was to explore the influence of labeling on Ss' perceptions of a person described in a short sketch. According to Guskin (1963) this distortion effect is a measure of the strength of the stereotype. The second question asked, therefore, was how strong is the stereotype of mentally retarded children in special education classes in public schools? To measure this labeling effect,

two factors of expressed attitudes via the semantic differential technique and a measure of perceived behavior were used.

The final purpose of the study was to investigate the relationship between expressed attitudes and a measure dealing with the degree to which a person commits himself to become involved with special education students. One would predict that a person's attitudes would be manifest in his behavior. Unfortunately, few, if any, studies have been found which have investigated this relationship with regard to attitudes and behavior toward any kind of disability (Yuker, Block, and Younng, 1970). As Yuker, et al. (1970)pointedout, studies investigating this relationship are essential to a complete understanding of the role of attitudes toward the disabled. For this purpose, a measure of commitment to involvement was designed by the author (Appendix C).

Importance of the Study

At this time, special education is at a focal point in its development. The case for or against integration of the special child is still an open one. Most experts in the field probably favor some form of integration, but only recently, Braginsky and Braginsky (1971) have made a case for establishing cooperative retreats in the country for mentally retarded children. Even among those favoring integrative programs, the optimal form of the program has not yet been clearly defined. More research is clearly indicated if a well-founded program and rationale are to be developed.

At another level, recent court decisions have upheld many important civil rights of the retarded. Central to these rights is the right to

an education. Several states (Washington and Pennsylvania, among others) are implementing "Education for All" bills which will incorporate a far greater number of students into special education. Increasingly, more and more severely and profoundly retarded children will take part in public education rather than be institutionalized. Many new programs are being set up all over the country. The decision to have integration or segregation of the special child, and the degree to which integration takes place are important variables in establishing these programs. It is of critical importance that these decisions, affecting as they do the whole philosophy of special education programs, be carefully evaluated and based on pertinent research.

The need for the present study was further indicated by the fact that contradictory findings in studies of acceptance and expressed attitudes toward educable mentally retarded (EMR) students have been reported, and not a single study dealing with trainable mentally retarded (TMR) students has been found. EMR students (I.Q.'s of 50-75, approximately) are considered to be mildly retarded and are able to progress to the fourth or fifth grade level in academic subjects. TMR students (I.Q.'s of 25-50), on the other hand, comprise the more moderately and severely retarded. Children in trainable classes generally learn few, if any, formal academic skills. Their education emphasizes self-help skills, language, compliance training, learning simple work habits, etc.

Reported studies have investigated sociometric methods (choosing seat partners, friends, etc.) or expressed attitudes. How the behavior of the special students was perceived had not been explored before. Also the measure of commitment to involvement with special education students

in the present study attempted to get at a different aspect of acceptance and involvement than that commonly measured by sociometric techniques. It is very possible that normal students who do not choose a mentally retarded person as the one they would most like to sit by, or as a best friend, might be influenced to become involved in other kinds of situations (e.g., doing things together with the retarded via special projects). This kind of involvement could be the basis of greater acceptance and further attitudinal change. The commitment to involvement measure asked the subjects to go beyond their feelings and how they see another's behavior in order to examine their own behavior. Here, they were asked to be participators and not just observers. This was an important contribution of the present study.

Finally, the present study explored the contact variable in an experimental situation which allowed us to look at a second effect, which can be described as the effect of a label in distorting one's perception of a person. Successful use of this procedure has been reported in the literature and should provide for greater validity in interpreting the contact variable as well as the labeling effect itself.

Review of the Literature

Many investigators have noted the importance of exploring attitudes toward the mentally retarded. In some cases, they have only called attention to the need for research and provided a conceptual framework for understanding this problem. Crandel (1969) has made a typical argument instating:"It has long been recognized that the attitudes of the nondisabled are a major source of difficulty in the education, socialization,

and rehabilitation of the disabled (p. 72)." Crandel maintained that the self-concept of the retarded person is critically influenced by others' attitudes.

Stating the problem in a slightly different way, Wolfensberger (1969) pointed out that the problem of deviancy can be approached on two fronts: training the deviant to be less deviant, and educating society to be more accepting of deviancy. This was also the rationale for studying opinions about mental illness. In her review of attitudes toward the mentally ill, Rabkin (1972) noted that mental patients have taken the place of lepers as targets of public disgust, dislike and rejection. Also, Rabkin reported the stigma to be general across social groups regardless of age, education, etc.

Goffman (1963) traced the origin of the term stigma from the time of the Greeks when it was a bodily sign designed to expose the low moral status of the signifier. Goffman has argued that stigma now refers more to the disgrace itself rather than the bodily evidence of it. Since everyone has a half-hidden failing, Goffman concluded that stigma can best be understood in terms of a normal psychology. He posited a continuum whereby all individuals go through to some extent what the severely stigmatized go through everyday.

Of course the problem of stigma with the mentally retarded is not new, as was documented so carefully by Kagan (1968). During the time of the Renaissance, retardates were recognized as so significantly different from normal persons, that new words were invented to describe them. Thus, "idiot" appeared in 1300, "dullard" in 1440, "dolt" in 1543 and "dunce" in 1577. A "natural fool" was legally defined as one congenitally

deficient in reasoning powers. However, Kagan's main point was that the real definitions of retardates were then, as today, social ones. A fool was a fool if he acted like one, and how he was treated depended upon how he fit into the world view of those doing the defining.

That this stigma is not a thing of the past was indicated by several studies. A survey by Hammond, Sternlicht and Deutsch (1969) of parental interest in their institutionalized mentally retarded children showed that only 14.7 percent of the 5,110 families of children in an overcrowded state school responded to the questionnaire sent to them regarding the possibility of setting up an appointment to discuss the child's progress and to explore the possibility of his living at home. Of those responding, virtually none desired to have their children released to them. This, plus the fact that records of parental visits (Klaber, 1968) have showed a generally low visitation rate to institutionalized children which is not related to distance traveled, imply that rejection and stigma are still very real phenomena with regard to the mentally retarded.

Only recently a strong case has been made for the need to explore the effects of labels and stigma on the special child. Jones (1972), in a review article, reported that there is no documentation of the extent of the problem of labels and stigma as perceived by teachers, pupils, etc. Also, he found no documentation of strategies to deal with these problems. Jones cited experimental studies to conclude the following:

1) Children tend to reject labels (in this case "culturally disadvantaged" or "culturally deprived") as descriptive of themselves.

2) Acceptance of a label for oneself is associated with less positive attitudes toward school.

3) Teachers have lower expectations for those who are labeled.

4) Stigma is associated with placement in an EMR special education class.

Thus the need to study attitudes and behavior toward the mentally retarded seems clear. The next step is to look at actual research which has been done.

According to Grossman (1972), "The dominant attitude toward mental retardation in our culture is that it always has tragic implications, not only for the retarded person, but for the family as well (p. 82)." Grossman's research, utilizing in-depth interviews and personality tests, challenged this view. Her results indicated that many of the problems associated with mental retardation are not inevitable, and that the social and psychological reactions of siblings, parents and friends of the retarded child exert a large influence on whether the traditional problems arise. Grossman's work has been generally supported in the literature. Neuhaus (1969) and Self (1969) both found a positive relationship between parental attitudes and the adjustment or maladjustment of the retarded child.

These studies point to the need for parental education and counseling to help parents accept their retarded child, which can in turn help determine the child's social adjustment. On a broader scale, the role of schools (where contact with the exceptional child is seen to have value in shaping the attitudes of future generations of parents) in this regard should be carefully evaluated.

A study by Hall (1972) on modification of attitudes toward the mentally retarded is germane to the present study. Using University undergraduates as subjects, Hall was attempting to measure the effect on attitude of two separate types of field experience with the mentally retarded. Types of experiences included: a) an orientation lecture and tour of a state institution for the mentally retarded; and b) interpersonal contact involving working with the mentally retarded. The 220 subjects were assigned to either a control group (no exposure to the mentally retarded) or one of the two experimental conditions. For the dependent variable measure, eleven stimulus words (institution, retardation, birth, children, custodial, trainable, educable, parent, low-grade, cottage and Partlow [Alabama's Institution for the retarded]) were rated on nine scales using a semantic differential technique. Hall's analysis of the differences between pre-test and post-test measures showed very few positive shifts of attitude after the training program was completed. There were, however, many negative shifts. Hall interpreted the results as showing that the placing of students with a uniform lack of knowledge about mental retardation in contact with the stark realities of institutional life for the mentally retarded is an eye-opening and depressing experience. However, Hall concluded on the positive note that a negative attitudinal shift may produce action rather than complacence.

At the present time, much research is being carried out through Michigan State University, where Jordan (1971) has developed an instrument based on Guttman's facet theory, which he calls the Attitude Behavior Scale-Mental Retardation (ABS-MR). This scale is being used in elaborate

cross cultural studies. As part of this study, Harrelson (1970) tested 21 hypotheses regarding attitudes toward the mentally retarded with a German population. The following findings are important to the present study:

1. Increasing the amount of contact with the mentally retarded is related to the subject's attributing negative attitudes toward the mentally retarded to others and positive attitudes to themselves.
2. Harrelson found no differences between the attitudes of male and female subjects toward the mentally retarded.
3. Increased knowledge about the retarded was not a predictor of positive attitudes toward the retarded.
4. The hypothesis that persons most familiar with the mildly retarded will have more positive attitudes toward mental retardation in general than will persons most familiar with the moderately and/or severely mentally retarded was clearly not supported.

The positive relationship between contact and positive attitudes was also found in a study of Texas Mexican-Americans by Morin (1969) using the ABS-MR. However, as we will see, the relationship between contact and attitudes is a confusing one in the literature.

In investigating social contact as an independent variable in the expressed attitudes of adolescents toward EMR pupils, Strauch (1970) compared the responses on semantic differential scales of a contact group (EMR pupils and this group were integrated for subjects like music and art) and a non-contact group (EMR pupils took all subjects in a self-contained program). Strauch reported no significant differences in

responses between the two groups to the concepts "Mentally Retarded" or "Special Class Pupils." The attitudes of both groups were essentially neutral. However, a trend whereby the contact group assigned more positive scores on the average to all concepts evaluated did make the contact effect significant. The total sample did perceive the concepts "mentally retarded" and "special class pupils" as significantly different (i.e., less positive) from the concepts "Me," "Regular class pupil," and "normal pupil." Strauch concluded that contact per se is not sufficient to produce more positive attitudes toward the EMR pupils. However, the control group in Strauch's study could be criticized because even the control students had some contact with EMR students in the self-contained program. Normal peers would have at least seen the EMR pupils regularly and had some interaction. Thus, it is only the degree of contact which is controlled and not the presence or absence of it. Better control of contact was an advantage in the study reported herein.

Jaffe (1966) utilized the semantic differential Evaluative factor and Strength-Activity factor, an adjective checklist favorability rating, and a social distance acceptability score to compare responses to a person described in a sketch as educable mentally retarded and a person identical in personal, social and vocational characteristics, but not described as retarded. The sketch of the retarded person received a lower score on the strength-activity factor, but not on the other three factors, which Jaffe interpreted to mean that subjects could attribute differences to the retarded person without, apparently, devaluing him. It should be noted that the sketch in Jaffe's study was very positive, i.e., the person was married, held a job, etc. Persons having previous

contact with the retarded attributed a significantly greater number of favorable traits to the sketch of the retarded person, but there were no differences on the basis of contact for the other three measures. Finally, girls also attributed a greater number of favorable traits to the sketch of the retarded person than did boys, but similarly evaluated him on the other three measures. The label "Mentally Retarded" was evaluated less favorably than the sketch of the mentally retarded person.

Using undergraduate students majoring in special education and general education as subjects, a study by Salvia, Clarke and Ysseldyke (1973) sought to determine what happens to stereotypes of exceptionality in the face of normal behavior. The study had three experimental conditions, i.e., the subjects were either told that they were to rate mentally retarded children, normal children, or gifted children. First, subjects were asked how a typical mentally retarded, normal or gifted child would be rated. This was their perception of the stereotype. Next they rated three normal children who had been labeled mentally retarded, normal or gifted. These children had been videotaped while taking sub-tests from psychological tests. With regard to the stereotypes, children labeled gifted were rated more positively than children labeled mentally retarded. However, with actual children, the results were less clear cut. Labels had a selective rather than a pervasive effect. A label might be believable for one child but not for another. Subjects retained portions of the stereotype, but rejected other components of the labels in the light of conflicting information. Salvia et al., concluded that the subject's perception of a child was not consistently affected by either a positive or a negative stereotype.

Doob and Ecker (1970) hypothesized that people feel sorry for and want to help the handicapped, but they also feel uncomfortable with them. Therefore, they predicted that if compliance does not involve the subject in further interaction, then there should be more compliance when the request was made by a stigmatized rather than normal person. They tested this prediction in an experimental condition where compliance merely involved filling out a questionnaire, and they found a significantly higher percentage of respondents (69.2% vs. 40%) when the request was made by a stigmatized individual (wore black eye patch) in comparison to the same individual without the stigma (no eye patch). When the request did require further interaction, i.e., an interview, there were no differences in compliance on the basis of stigma.

A series of studies by S. L. Guskin delved deeply into the meaning of stereotype and the influence of labels. As it is often interpreted, the strength of the stereotype of a group refers to "the extent to which the preconception has blinding or distorting effects, resulting in exaggeration of similarities among members of the same group, exaggeration of differences between members of different groups, and resistance to contradictory information" (Guskin, 1963, p. 569).

However, Guskin showed that as usually measured, the strength of a stereotype is the extent to which people agree on the traits to be attributed to the group. Thus, if 90 percent of a group agree that "Negroes are lazy," this group is said to have a strong stereotype of the Negro. However, this kind of measure has nothing to do with distorting effects as outlined above. Thus, those who agree that Negroes are lazy may <u>not</u>

call specific Negroes "lazy" if they are observed behaving in the same manner as a white person who is called "ambitious." It is this latter observation that is relevant to the interpretation of stereotypes.

In his first attempt to measure the influence of labels, Guskin (1958) presented sketches of the behavior of a person to a control group and experimental groups. The latter were given the additional information of a group label (e.g., a businessman or a factory worker) while the control group was given the behavior samples alone. The dependent variable was selection of 20 adjectives from 20 pairs of adjectives. Guskin's results showed that the group membership labels did not influence the extent to which the sketch persons were discriminated from one another.

In a second study, Guskin (1962) showed movies of two mentally retarded children to 42 college students. Half of the judges (21 subjects) received instructions that both children were in special classes for mentally retarded children, whereas the other 21 subjects were only informed that the children were in public school classes. Guskin found that a perceived measure of subnormality via a semantic differential technique was significantly higher when the label "mentally retarded" was applied to a child in the movie. The influence of the label varied as a function of extent of observation and differences in children. Thus, if the child presented relevant cues to mental retardation, then the label had a significant negative influence. Conversely, if the child seemed to be getting along satisfactorily, the label did not result in the child's being devalued.

In a third study, Guskin (1963) again found that a label could influence judgments of people but only when the other information about the person (in this case, sketches of mostly inappropriate behaviors) facilitates it. In a separate part of this study, Guskin reported that the stereotype of a mental defective, as attributed by 34 of 50 subjects, is characterized as quiet, timid, unintelligent, abnormal, strange, helpless, and clumsy.

Other investigators have also explored the stereotype. Greenbaum and Wang (1963) utilized the semantic differential in a study to measure the attitudes of four target groups (parents of MR children, professionals, para-professionals, and business executives) toward the concepts of mental retardation. The terms evaluated were "idiot," "imbecile," "moron" or "mentally retarded." The terms "mentally ill," "emotionally disturbed" and "neurotic" were employed for comparison. The findings suggested that the para-professional and parent groups had more favorable stereotypes of the mentally retarded than do the professional and employer groups. However, the results were very similar for all four groups and the general attitude was mainly a negative one. Responses in all groups toward the mentally retarded were more negative than those toward the mentally ill.

At this point, a word of caution should be introduced. Mercer (1971) described key variables in the process which leads children to be labeled "mentally retarded." Her data clearly indicated that a child's ethnic and economic characteristics play as important a role in the labeling process as his level of intellectual functioning. Thus, a disproportion

of those labeled mentally retarded come from poor minority groups. Obviously, mental retardation is not a single entity that can be isolated from the total functioning person and his environment.

Numerous sociometric studies have consistently shown that the educable mentally retarded are the least accepted and/or actively rejected in a class with their normal peers (Johnson and Kirk, 1950; Jones, Gottfried and Owens, 1966; Lapp, 1957; Rucker, 1967; Rucker, Howe and Snider, 1969). The sociometric technique (Moreno, 1953) requires an individual to choose his associates from any group of which he is or might become a member. The associates chosen can be members of the present group or outsiders.

The Lapp (1957) and Rucker (1967) studies investigated the social choices of normal adolescents who had been in regular classes with EMR pupils for part of the day. Results showed the EMR student receiving significantly lower acceptance scores than their normal peers.

Rucker, Howe and Snider (1969) used the Ohio Social Acceptance Scale to measure differential responses toward retarded children in regular junior high school classes and their non-retarded classmates. Subjects rated every other member of the class on a six point rating scale ranging from "I would like to have this person for one of my very best friends" to "I don't like this person and would rather not talk to this person." The results portrayed the retarded as less accepted than their non-retarded classmates and they were as low in the social structure of non-academic classes like physical education as they were in academic classes like science.

However, this low position in the social structure is also true of children with other handicaps. Havil (1969) studied 63 visually handicapped children (4th grade and above) with no other complicating handicap, who were integrated in public school classes. Each child in this group was matched with a normally seeing classmate on the basis of sex, race, age, socio-economic status and achievement. Students in each class then chose five companions for work, leisure, and eating situations. The results showed the normal seeing group had significantly higher sociometric status than the visually handicapped group. Those visually handicapped who were achieving at or above the level of the class in which they were placed, experienced the highest level of acceptance.

It seems clear that there are a tremendous number of variables which can influence a person's perception of the mentally retarded. This complexity was further illustrated by Smith and Hurst (1961) whose results indicated a significant positive relationship between motor ability of mentally retarded children and peer acceptance. Clark (1964) reported a similar finding wherein nrmal peers reacted more to the mentally retarded person's appearance and athletic ability than to his intelligence or academic ability. The thread of continuity running through the sociometric studies and the results of the attitude research (e.g., Jaffe, 1966; Guskin, 1962) seems to be this: If the handicapped person is getting along fairly well, his acceptance is greatly enhanced.

Jones, Gottfried and Owens (1966) investigated 186 normal high school subjects. Their method was to set up all possible pairs of twelve types of exceptionality (e.g., deaf, blind, mentally retarded, gifted, crippled,

etc.) and have subjects select one group of the pair with regard to some level of social acceptance (marriage, playmate, neighbor, etc.). Their results showed the severely retarded were the lowest on the social distance scale for every dimension of acceptability. The mentally retarded (a different group than the severely retarded) were consistently low, although some groups such as the emotionally disturbed, or delinquents were lower on certain dimensions. Jones, et al. concluded that exceptional children are not necessarily accepted or rejected on absolute grounds; rather there are differential responses depending on the situation.

Thus far, we have seen that the effect of contact with the mentally retarded as measured in sociometric studies has been generally a negative one. This contrasts with the positive effect of contact reported in some of the attitudinal studies (Harrelson, 1970; Morin, 1969; Jaffe, 1966). However, if we consider Strauch's (1970) finding that contact per se in a school situation is not sufficient to produce more positive attitudes toward EMR pupils, along with the findings of the sociometric studies that the effect of contact with the mentally retarded in school has been generally negative, we may postulate that contact via a school situation does not appear to have a positive influence.

Yuker, Block and Younng (1970) reported data from over 20 studies utilizing the Attitudes Toward Disabled Persons (ATDP) scale. More than half of them showed that persons who had more contact with disabled persons tended to obtain significantly higher scores (more positive attitudes) on the ATDP than persons with less contact. In the remaining studies,

responses were not significantly different on the basis of contact. Yuker, et al. (1970) suggested that these discrepancies may be due to the presence of uncontrolled contaminating factors. They pointed out that it would help if extent of contact could be objectively measured, but concluded that increased contact with disabled persons generally results in more positive attitudes. They stated that:

> Summarizing the data from studies which have defined the type or setting of contact and its effects on attitudes, there is clear evidence that the closer the social and personal contacts with the disabled the greater the acceptance of disabled persons in general. A possible exception to this appears in regard to persons who have a disabled family member; and specifically to children with disabled siblings. It also appears that contact in a medical setting has less positive effects on attitudes than contacts in either an employment or a social or personal setting . . . These differences may be attributed, at least in part, to differences in the type of information provided by the different types of contact (p. 87).

Thus, it seems clear that it is not contact per se, but the type and quality of contact which is of critical importance. It is a primary goal of the present study to shed additional light on this area by evaluating the type of contact between normal peers and special education students that is found in a public school.

The Present Study

The basic objective of the present study was to investigate differences between 7th and 8th grade students who have had contact with special education class students and a control group of students who have had no such contact. The results and techniques of past studies indicated that in pursuing this objective, the following features were important:

1. The stimulus used to elicit Ss' responses was a written sketch and not just a single word or label. This model allowed E to control the type and amount of information given about the person. It was believed that the most realistic situation was one in which the stimulus person was presented as having a combination of both positive and negative characteristics, with neither being predominant.
2. A description of a person who is not labeled mentally retarded was used as a control. Thus, one-half of the students in each school rated the sketch of the person labeled mentally retarded (labeling condition) and the other half of the group rated the identical sketch without the label (control condition).
3. Techniques were utilized to measure two distinct factors of Ss' attitudes. There was also a measurement of the way Ss perceived the behavior of the stimulus persons. Finally, the degree of commitment to involvement with mentally retarded children from special education classes was also measured. Using four dependent variables, is important for two reasons. First of all, the complexity of Ss' responses could not be tapped by a single measure. Secondly, whereas significant results on any one measure could be confounded with some unique characteristic of the measure which is not under E's control, the probability of this happening on more than one measure, and especially on all four measures, is very low indeed.

4. It is important to obtain information about non-adult subjects. The seventh and eighth grade students of this study represented a significant, but relatively uninvestigated segment of the population.

Figure 1 provides a graphic representation of the basic design of the study. The design used was a 2 x 3 factorial (A X B) design. The effect of labeling was designated as the A effect, while the contact variable was called the B effect. Subjects came from three separate schools which allowed for differential contact with mentally retarded children. Thus, for the B effect, subjects were divided on the basis of the type of contact with special education pupils that was provided by their school, i.e., contact with EMR pupils (Groups 1 and 2), contact with TMR pupils (Groups 3 and 4), or no contact with special education class pupils (Groups 5 and 6).

Next, one half of the Ss within each of these three contact groups were randomly assigned to one of the two levels of A. In the control condition (A_1), Ss responded to a sketch of a twelve-year-old boy. Groups 1, 3, and 5 represent the three contact groups who responded to the person in the control condition. Subjects in the labeling condition (A_2), responded to an identical sketch of a twelve-year-old boy with the added information that he attended special education classes for the mentally retarded. Groups 2, 4, and 6 represent the three contact groups who responded to the person in the labeling condition.

Since all subjects received the commitment to involvement measure, the last part of the study can be seen as a simple-randomized design

FIGURE 1

BASIC DESIGN OF THE STUDY

Type of Contact (B)	Stimulus Person (A)	
	Control Condition (A_1)	Labeling Condition (A_2)
EMR Contact (B_1)	Group 1	Group 2
TMR Contact (B_2)	Group 3	Group 4
No Contact (B_3)	Group 5	Group 6

(Lindquist, 1953) in which differences in responding were analyzed for the three contact groups.

Hypotheses

1. There is no definitive study available in the literature relating to the effect of a "mentally retarded" label on Ss' perception (Jones, 1972). However, because of the preliminary evidence available that stigma is associated with placement in an EMR special education class (Jones, 1972), the findings concerning the low social position of special education students in the sociometric studies (Lapp, 1957; Rucker, 1967; Rucker, Howe and Snider, 1969) and the evidence that a stereotypic label appears to have a distorting effect depending on the other information in the total context (Guskin, 1962; Guskin, 1963; Salvia, Clark, and Ysseldyke, 1973), it was hypothesized that having information that a person is in a special education class for the mentally retarded would result in significantly more negative responses on the dependent variable measures in comparison to an identical person not so labeled (significant A effect). This hypothesis was tested by three dependent variables: the semantic differential Evaluative factor, the semantic differential Strength-Activity factor, and a perceived behavior measure(items from the Adaptive Behavior Scale).
2. As has been stated earlier, the picture regarding the benefits of contact with handicapped individuals in general, and the mentally retarded in particular, is a confusing one. However, because these benefits have been assumed by many educators (e.g., Shattuck, 1946;

Kirk, 1962; Dunn, 1968), and because there is evidence that certain kinds of contact do correlate with increased acceptance of the disabled (Yuker, Block and Younng, 1970) and with more positive attitudes toward the mentally retarded (Harrelson, 1970; Morin, 1969), it was hypothesized that the kind of social contact present in the public schools of this study should be conducive to more positive responses on the dependent variables. Specifically, hypothesis 2 stated that the labeling effect, predicted in hypothesis 1, would vary as a result of the previous contact Ss have had with mentally retarded students in special education classes (significant A X B interaction).

3. Hypothesis 3 was based more on logic rather than experimental studies. TMR students generally have a more visible handicap than do EMR students. Also, TMR students clearly have more significantly limited abilities in social situations. The effects of visibility of handicap and severity of mental retardation are unknown. The Hall (1972) study investigating the effects of contact with institutionalized retardates showed negative shifts after contact in a pre- and post-test design. It seems reasonable to believe that, for the average student, contact with TMR students is not as reinforcing as contact with EMR students, but in either case, if contact is beneficial, both of the contact groups should be more positive than the no contact group. Therefore it was hypothesized that the responses to the person in the labeling condition would be significantly different for the three contact groups, and in this order from highest to lowest:

Group 2 (EMR contact) > Group 4 (TMR contact) > Group 6 (no contact). Higher scores indicate more positive responses.

4. Hypothesis 4 makes another specific prediction regarding the effects of contact. If contact has positive effects on Ss' attitudes toward the mentally retarded (hypothesis 3) then these effects should also be observable in Ss' desire to interact with the mentally retarded. Accordingly, it was predicted that the degree of commitment to involvement with mentally retarded pupils in a situation that Ss thought would actually happen, would be significantly greater for Ss having contact in school with mentally retarded pupils in comparison to Ss in the no contact group.

5. It is reasonable to predict that a person's attitudes would be manifest in his overt behavior. Unfortunately, as has been pointed out, no evidence regarding this point is available concerning attitudes toward the disabled (Yuker, et al., 1970). The author hypothesized that those Ss who had the most positive attitudes toward the mentally retarded would be the most likely to commit themselves to volunteering efforts to interact with the mentally retarded. Therefore, Hypothesis 5 stated that for the sample of students rating the person labeled mentally retarded, there would be a statistically significant positive correlation between expressed attitudes as measured by the semantic differential Evaluative factor and the level of desired interaction measured by the commitment to involvement measure.

Chapter II

METHOD

Subjects

In order to test the proposed hypotheses, the author took advantage of particular groupings in three Missoula, Montana schools which were ideal for the present research purposes. At the time of the study, all of the TMR classes (4) of the city were held in the Lowell School. There was also one class that was technically called an EMR class at Lowell School, but there were also trainable students in this class and the general level of functioning was probably lower than that usually ascribed to EMR classes. Taken as a group, the special education class students at Lowell School represented a more severely retarded population when compared to the students at the second school, C. S. Porter. Only EMR classes (4) were held in C. S. Porter. The third school selected for the study was the Willard School. Students from this school served as a control group for the contact variable since special education classes have never been held in this building.

Subjects were 50 7th and 8th grade students from each of the respective schools. In each school, 25 students were assigned to the control condition, and 25 students were assigned to the labeling condition. Thus, six groups of 25 subjects or a total of 150 students participated in the study. Approximately 30 subjects were randomly omitted from both

the C. S. Porter and the Willard schools in order to achieve an equal n's design. The mean age of the subjects in the six groups ranged from 13.10 to 13.72, with the mean age of the entire sample being 13.41.

The significance of using subjects in this age group is a key point. It is possible that there may be less tendency for non-adult subjects to hide their true feelings than for adults. In his study of high school seniors, Jaffe (1965) indicated that the attitudes of this group may be more amenable to change than those of older persons. He also pointed out that they are the future fellow workers, employers and neighbors of the handicapped, and that few studies have been carried out with this age group.

Demographic Variables

Based on the research now available on attitudes toward the mentally retarded or the disabled in general, it is difficult to ascertain the importance of demographic variables such as age, sex, intelligence, or socioeconomic status. Therefore, the following procedures were used:

Age: Age was held nearly constant across groups as we have seen. However, according to Yuker, Block and Younng (1970), age does not appear to be a significant variable in affecting attitudinal responses toward disabled persons.

Sex: There is a tendency for adult females to be more accepting of disability than adult males (Yuker, et al., 1970; Jordan, 1968). However, Knittel's (1963) study of junior and senior high students showed no significant differences in responding between boys and girls. And Jaffe (1966), in his study of high school seniors, found

a significant difference on the basis of Ss' sex in only one of his four measures. The proportion of males and females in each group of the present study was kept as equal as possible to rule out the possibility of a contaminating variable. A summary of these data is provided in Table 1. Table 1 shows that, although the percentages of males and females were not equal in each group, in no case was the preponderance of one sex extreme.

Intelligence: Jaffe (1966) found no relationship between high school Ss' intelligence and attitudinal responses toward the mentally retarded. Since no studies have been found which showed this to be a significant variable, it was not controlled in the present study.

Educational Level: The generally positive relationship between educational level and attitudes toward the disabled (Yuker, et al., 1970) was not a factor in the present study since all students were at the same educational level.

Socioeconomic Status: Yuker et al. (1970) reported that there are insufficient data to draw conclusions about the relationship between a subject's attitudes toward the disabled and his socioeconomic status. Jaffe (1966) reported no significant relationship between high school students' attitudes toward a mentally retarded person and their socioeconomic status. Again, to be on the safe side, this factor was balanced as much as possible. Specific information on the financial status of parents was simply not available. However, general socioeconomic information was obtained from each of the principals and from the Title I Director for Missoula Schools. All

TABLE 1

A SUMMARY OF THE BREAKDOWN OF MALES

AND FEMALES IN EACH GROUP

Group	Sex of Subjects			
	Females		Males	
	N	%	N	%
1	12	48	13	52
2	15	60	10	40
3	13	52	12	48
4	12	48	13	52
5	10	40	15	60
6	10	40	15	60
Totals	72	48	78	52

three schools were Title I schools, which means that they had a significant percentage of families who were receiving Aid for Dependent Children. At the time of the study, only 7 of the 18 elementary schools in Missoula had this designation. Non-Title I schools and those in new development areas were purposely excluded in order to achieve maximum homogeneity in the three target schools. The principals in each of the selected schools reported that the majority of the students' families in this study were working class families. There were very few families in the upper income bracket in the Lowell or Willard schools. C. S. Porter had approximately 20 families who were from newer, upper middle class homes. The rest of the students at C. S. Porter came from working class families. The Title I Director confirmed the descriptions of the principals and agreed that the students in these schools came from very similar socioeconomic backgrounds.

Description of Social Contact of Subjects

C. S. Porter

Contact here, where the EMR classes were held, included the opportunity to eat lunch together, shared recess and lunch breaks on the playground, shared music classes, participation in all-school events (attendance at plays, concerts, sporting events, etc.), and participation in extra-curricular activities (primarily student council and sports).

Lowell

The kinds of contact at the Lowell School, where the TMR classes were held, included eating lunch together, shared recess and lunch breaks on the playground, and participation in all-school events. Thus it can be seen that there was greater involvement of the EMR students with their normal peers than was true of the TMR group, due to the EMR students' participation in music classes and extra-curricular activities.

No Contact Control Group, Willard School

No special education classes had ever been held in this building.

Measures

Instrument limitations as well as various dimensions of attitudes make the use of more than a single instrument very desirable. Accordingly three instruments and four separate measures were employed in the present study.

Semantic Differential

Essentially this technique requires the subject to rate a concept or person on pairs of bipolar adjectives called scales. Each scale (e.g., valuable-worthless), has a seven point rating continuum, so that the subject can rate the person from extremely valuable, which receives a score of seven, to extremely worthless, which receives a score of one. Thus, the method provides a technique for the quantitative indexing of attitudes.

An important advantage of the semantic differential technique is that it provides indices for different facets of meaning. Osgood, Tannenbaum and Suci (1957) employed factor analyses of numerous scales that were used to rate a variety of concepts. Their work resulted in the extraction of three major factors. The Evaluative factor consists of the good-bad aspect of meanings and accounts for most of the extracted variance. Osgood, et al. (1957) reported high correlations of this factor with conventional attitude-measuring instruments.

The authors reported two additional factors which account for much less of the variance. These were the Activity factor (e.g., fast-slow) and the Potency factor (e.g., strong-weak). Although the amount of variance accounted for by these two factors was not large, they did measure a different facet of attitude and are therefore important.

The reliability studies of Osgood, et al. (1957) gave additional evidence of the usefulness of these factors as a measure of attitude. For example, they reported a study of 100 subjects where 40 items were randomly sampled from a total of 1000 items for test-retest correlation data. The obtained reliability coefficient was .85. As far as objectivity is concerned, it seems these authors were correct in maintaining that their procedures eliminate the idiosyncracies of the investigator in arriving at the final index of meaning. This is the essence of objectivity.

The form of the particular semantic differential used in the present study (see Appendix A) was that used by Jaffe (1966). Jaffe factor analyzed 22 adjective pairs formerly used by Greenbaum and Wang (1965)

for their relevance to persons, but especially mentally retarded persons. By performing two rotations of his analysis based on the responses of 477 high school subjects, Jaffe reduced the Potency and Activity factors to a single Strength-Activity factor which was distinct from the Evaluative factor.

The eleven scales found to be significantly loaded on the Evaluative factor were the following:

1. Valuable-Worthless
2. Clean-Dirty
3. Tasteful-Distasteful
4. Warm-Cold
5. Deep-Shallow
6. Easy to get along with-Hard to get along with
7. Self-reliant-Dependent
8. Reliable-Unreliable
9. Neat-Sloppy
10. Not dangerous-Dangerous
11. Employable-Unemployable

Jaffe computed internal consistency coefficients for the Evaluative factor. The consistency coefficients ranged from .72 to .83 and were considered sufficiently high for making group comparisons.

The four scales found to be significantly loaded on the Strength-Activity factor were:

1. Active-Passive
2. Large-Small

3. Strong-Weak

4. Independent-Suggestible

Jaffe's subjects had significantly different responses to this second factor when compared to the Evaluative factor. He interpreted this to mean that subjects could perceive differences without devaluing the person because of his differences, a point that is very important in the present study.

The format of the semantic differential used in the present study employed a six-point scale rather than the seven-point scale that is commonly used. Nunnally (1967) reported that there is a slight advantage to using an even number of steps rather than an odd number of steps. His conclusion was based on evidence that a neutral step introduces response styles. Some subjects use the neutral point more often than others, but individual differences in this regard may not relate highly to the attitude in question. He reported that subjects often make all of their marks on the neutral point, thus finding a way not to participate in the study. Finally, reliable differentiations have been found between subjects who marked the neutral point on a five-point scale and a second testing using a six-point scale. Nunnally (1967) also reported that subjects easily become confused by numerous alterations of the polarity of a scale. For example, they might rate a concept as "very good" and also "very worthless." His conclusion was that reversing polarity, which tends to prevent subjects from being influenced by ratings made on previous scales, is probably not worth the price that is paid in measurement error. This conclusion was also followed in planning the format of the scales in this study.

Weksel and Hennes (1965) suggested that the semantic differential can be used as an effective attitude measure when stability over a long period of time is not a criterion. They indicated a need for additional evaluation instruments if the researcher is concerned with intensity of response rather than direction.

A finding by Stricker (1963) that the semantic differential can be used to make predictions of behavior (voting) is a point of great importance to the researcher, and one indicating the worth of the semantic differential as a research tool.

In his study with Junior High Students, Strauch (1970) chose the semantic differential because it is considered to be a general measure of attitudes. He concluded that it afforded considerable flexibility, is economical, and is easily administered.

In summary, the semantic differential was considered appropriate for the present study because it provides a highly reliable measure of general attitudes which could be easily administered to seventh and eighth grade students. Also, since it has been used in the majority of the studies regarding attitudes toward the mentally retarded that were reported in Chapter I, it allows for more direct comparison of the results of the present study with previous research.

Perceived Behavior -- The Adaptive Behavior Scale (ABS)

The Adaptive Behavior Scale (Nihira, Foster, Shellhaas, and Leland, 1969) is a behavior rating scale for mentally retarded and emotionally maladjusted individuals. As we have seen, the term "adaptive behavior" was introduced and defined by the American Association on Mental

Deficiency in its Manual of Terminology and Classification (Heber, 1961). According to the Adaptive Behavior Scales manual (Nihira, et al., 1969), adaptive behavior refers to "the effectiveness of the individual in coping with the natural and social demands of his environment (p. 5)."

The Adaptive Behavior Scales consist of two parts. Part I is designed to assess the individual's skills and habits in the area of personal independence and daily living. The ten domains of Part I sample the child's skills in the following areas: Independent Functioning, Physical Development, Economic Activity, Language Development, Number and Time Concept, Occupation (Domestic and General), Self-Direction, Responsibility, and Socialization. Part II of the scale is designed to provide measures of maladaptive behavior. Nihira et al. (1969) made the point that the question of whether a given behavior is adaptive or maladaptive depends upon the way that behavior is perceived and interpreted by people in our society. The fourteen domains of Part II sample behaviors that are violent, anti-social, stereotyped, etc.

For purposes of investigating how normal peers would perceive the behavior of special education students, 20 behaviors (see Appendix B) were selected from the form for children 12 years or younger (1972 Revision). Three criteria were used in selecting the 20 items from the 110 items of the ABS. First, the item had to be appropriate for the age group in question. Secondly, the items had to sample each of the 10 domains of Part I. Thirdly, the 20 items had to maintain the same percentage of adaptive behaviors (60%) and maladaptive behaviors (40%) as did the entire scale. Thus, 12 items were selected from Part I, and 8 items were selected from Part II.

The manual reported the mean reliability of the entire scale as .67, with Part I having a higher reliability (.74) than Part II (.61). Factor analyses of domain scores delineated three major dimensions: Personal Independence, Social Maladaptation, and Personal Maladaptation. Few practical validity studies have been done, but the authors reported that all of the domains of Part I of the scale discriminated significantly between retardates who have been previously classified at different levels of adaptive behavior by clinical judgment. Six domain scores in Part II significantly discriminated between various groups of psychiatrically impaired retardates even though the groups had the same IQ and general functioning level.

In the use of this scale in the present study, it was believed that it provided a good source of varied behaviors which could be used to rate the stimulus persons. Subjects rated the stimulus person on a six-point scale, indicating how sure they were that he was able to perform each behavior. It was felt that focusing on how concrete behaviors were perceived provided a good complement to the more affective states tapped by the semantic differential technique. This focus on specific behaviors was an original contribution of the present study.

Commitment to Involvement

This measure was designed by the author to give subjects a chance to show their desire for interaction with special education students in what was portrayed as a realistic situation that would actually happen in the future (see Appendix C). Commitment to a course of action is a form of self-control (Skinner, 1953), which has recently gained increasing importance

in the study of self-regulation of behavior. It has been theorized (Rachlin and Green, 1972) that commitment strategies are important because of reversals of preference that occur from one time to another. Rachlin and Green (1972) have provided the example of payroll savings plans as a way of understanding commitment in terms of reversals of preference. At the time a person signs a payroll savings plan, he wants to save some of his money. However, he knows that when he actually receives the money this preference will have reversed and he will want to spend it. Thus, a commitment strategy provides a way for a person to control his own behavior. If current studies are correct in interpreting self-management of one's own behavior in terms of strategies of commitment, then the commitment variable is of critical importance in understanding how Ss would manage their own behavior in interacting with the mentally retarded. Accordingly, Ss were given the opportunity to volunteer to work with mentally retarded children from special education classes and responded on a four-point scale ranging from not volunteering (scored 0), to volunteering once or twice a year (scored 1), once a month (scored 2), or once a week (scored 3).

The author felt that this measure was more than an academic exercise for the subjects. It was not just another question on a questionnaire. On the commitment to involvement measure, Ss were asked to go beyond their perception of another's behavior in order to examine their own behavior. This measure also provided an independent method for comparing Ss who had had contact in school with mentally retarded pupils and Ss who had not. Finally, it provided a way of investigating the correlation between Ss' expressed attitudes and their commitment strategy (Hypothesis 5).

Because the students actually signed their names to this section of the survey, and because of the potentially large number of students who could have signed up to volunteer, the administrative personnel of School District 1 felt it would be best to debrief the students afterwards that the study was an experiment and they would not actually be contacted for volunteer work. However, the Region 1 Residential Center of Missoula, Montana, which was at that time a group home for 5 TMR children (ages 6-10), was made available to students who were very interested in doing volunteer work with the mentally retarded. Students were told that this center could accommodate only a limited number of volunteers. Two students from each school (5 girls and 1 boy) actually participated as volunteers.

Supplementary Questions

It was important to determine if those students in the non-contact school might have had an appreciable amount of contact with mentally retarded persons from other situations, e.g., home, neighborhood or relatives. Also, it was not known if there were a significant number of students in the non-contact school who had transferred from schools that did have special education classes in their building. Finally, it was important to determine if the students in the two contact schools actually did know their fellow students in the special education classes. The fourth section of the student survey (see Appendix D) was set up to answer these questions.

Procedure

The Stimulus Variable

A written sketch was used to elicit Ss' responses and served as the

independent variable for the study. It was believed that the most realistic situation was one in which the stimulus person was presented as having a combination of both positive and negative characteristics, with neither being predominant. Accordingly, a sketch of a twelve-year-old boy was developed which was similar to Jaffe's (1966) original sketch of a twenty-four-year-old man, but contained less positive information that could be viewed as inconsistent with the label mentally retarded. An identical sketch without the label was used as a control.

The sketch is provided below:

> Tom Randall, a twelve-year-old boy, is of average height and weight. He attends (a local Missoula school/ special education classes for the mentally retarded). He has one sister and one brother. Like many boys Tom's age, his mother describes his behavior in this way: "When he is good he is very good, but when he is bad he is terrible." Tom presents a neat appearance. Although he has his share of problems, things seem to be going all right for him.

The cues provided in the sketch were minimal. This allowed the subjects to project their feelings and impressions about Tom Randall to fill in the details. This is a useful technique and has been used in all previous studies with sketch persons.

Summary of Independent and Dependent Variables

The independent variable which was manipulated was the presence or absence of a label indicating mental retardation in the sketch presented to the subjects. In addition, this variable was studied in three different subject populations depending on the extent and type of contact they had experienced in school, i.e., contact with EMR students, contact with TMR students, or no contact with special education students.

The following were the dependent variables:

1. Semantic differential Evaluative factor -- general measure of expressed attitudes.
2. Semantic differential Strength-Activity factor -- an attitude measure tapping a different facet of the attitude space.
3. Perceived behavior -- a rating of the subject on 20 items from the Adaptive Behavior Scale.
4. Commitment to involvement -- a four-point scale to measure the degree of involvement subjects desire with special education students.

Administration

The stimulus person and the dependent variable measures were compiled into a booklet (see Appendices A, B, C, and D). They were administered to an entire class at a time by the author. By randomly ordering the booklets, one-half of the students in each class received the sketch of the person who was labeled mentally retarded and the other half of each class received an identical sketch without the label. Each person rated only one of the sketches. The measures were administered under the standardized directions detailed in the Appendices.

After the measures of expressed attitudes and perceived behaviors were completed, all students completed the measure on commitment to involvement. This measure allowed each subject to choose whether or not he would like to become involved with mentally retarded children as a volunteer. Subjects who wished to become a volunteer indicated the degree of involvement they desired (see Appendix C).

Chapter III

RESULTS

Major Results

Hypothesis 1 stated that, on the average, the responses of the three groups rating the person who was labeled mentally retarded would be significantly more negative than the average of the three groups rating the person who was not so labeled. Hypothesis 1 was tested by computing a separate analysis of variance (ANOVA) for the scores on the semantic differential Evaluative factor, the semantic differential Strength-Activity factor, and the perceived behavior measure. Summaries of the results of these three ANOVAS are presented in Tables 2, 3, and 4.

For each of these measures, Ss responded on a six-point scale. The most negative response on any item was arbitrarily assigned a score of 1, while the most positive response was assigned a score of 6. The scores on all of the items in a given measure were then summed for each individual subject in order to compute his overall score for that measure. Since the semantic differential Evaluative factor contained eleven items, the maximum score possible was 66, while the minimum score possible was 11. Similarly, for the four items of the Strength-Activity factor, the highest possible score was 24, while the lowest possible score was 4. On the twenty-item perceived behavior measure, minimum and maximum scores ranged from 20 to 120.

TABLE 2

SUMMARY OF ANALYSIS OF VARIANCE ON SCORES FROM THE SEMANTIC DIFFERENTIAL EVALUATIVE FACTOR

Source	SS	df	MS	F
Labeling (A)	648.96	1	648.96	21.86*
Contact (B)	30.24	2	15.12	.51
A X B	749.44	2	374.72	12.62*
Within (error)	4,275.31	144	29.69	
Total	5,704.00	149		

* $p < .001$

TABLE 3

SUMMARY OF ANALYSIS OF VARIANCE ON SCORES FROM THE SEMANTIC DIFFERENTIAL STRENGTH-ACTIVITY FACTOR

Source	SS	df	MS	F
Labeling (A)	42.66	1	42.66	8.51*
Contact (B)	1.21	2	.61	.12
A X B	46.05	2	23.03	4.60*
Within (error)	720.77	144	5.01	
Total	810.69	149		

* $p < .05$

TABLE 4

SUMMARY OF ANALYSES OF VARIANCE ON SCORES

FROM THE PERCEIVED BEHAVIOR MEASURE

Source	SS	df	MS	F
Labeling (A)	552.95	1	552.95	5.84*
Contact (B)	166.97	2	83.49	.88
A X B	908.21	2	454.11	4.80*
Within (error)	13,627.76	144	94.64	
Total	15,255.89	149		

* $p < .05$

The obtained results were very consistent and revealed a significant main effect for the labeling factor (A) which was in the predicted direction. Thus, for the Evaluative factor, the mean score for the three groups rating the person who was labeled mentally retarded was 44.32, while the score for the three groups rating the person who was not labeled was 48.48. Similarly, on the Strength-Activity factor, the mean score was 15.56 for the person labeled mentally retarded as compared to a mean of 16.63 for the person not so labeled. Finally, on the perceived behavior measure, the means were 73.05 for the three groups in the labeling condition and 76.89 for the three groups in the control condition. Thus, hypothesis 1 was supported.

Hypothesis 2 predicted an interaction between the labeling factor, A, and the contact factor, B. Hypothesis 2 stated that the labeling effect would vary as a result of the previous contact Ss had had with mentally retarded students in special education classes. Hypothesis 2 was tested by means of the A X B interaction in the ANOVAS presented in Tables 2, 3, and 4. The results were again consistent and revealed a significant A X B interaction on all three measures. Therefore, hypothesis 2 was also supported.

It should be recalled that the items of the perceived behavior measure which were taken from the Adaptive Behavior Scale incorporated twelve adaptive behaviors (e.g., self-help skills) and eight maladaptive or socially inappropriate behaviors. A casual inspection of these items indicated that the labeling effect might not be present in the items dealing with maladaptive behaviors. It appeared that, as far as their

perception of maladaptive behaviors was concerned, Ss perceived no difference between the person who was labeled mentally retarded and the person who was not so labeled. In order to investigate this possibility, the items were separated into scores for adaptive behaviors and scores for maladaptive behaviors, and a separate ANOVA was computed for each (see Tables 5 and 6). These results revealed a significant main effect on A and a significant A X B interaction for the scores pertaining to adaptive behaviors. However, there were no significant results (see Table 6) for the scores pertaining to maladaptive behaviors. The results for the adaptive behaviors taken separately revealed even stronger effects ($p < .001$) than when the adaptive and maladaptive behaviors were combined into a single perceived behavior measure (from Table 4, $p < .05$).

Hypothesis 3 stated that the three groups rating the person labeled mentally retarded would be significantly different and in this order from highest to lowest: Group 2 (EMR contact) > Group 4 (TMR contact) > Group 6 (no contact). Higher scores indicate more positive responses. A Newman-Keuls procedure (Snedecor and Cochran, 1967) was utilized to specify the locus of the differences among the means in the three groups. A summary of the group means and the standard deviations for the dependent variable measures is provided in Table 7. A summary of the respective Newman-Keuls procedures for comparing these means is reported in Appendices E, F, G, H, and I. Finally, a graphical representation of the group means is provided in Figures 2, 3, and 4. The results of the Newman-Keuls procedure revealed that there were no significant differences between any of the three contact groups in the labeling condition

TABLE 5

SUMMARY OF ANALYSIS OF VARIANCE ON SCORES FROM THE ADAPTIVE BEHAVIORS OF THE PERCEIVED BEHAVIOR MEASURE

Source	SS	df	MS	F
Labeling (A)	859.20	1	859.20	15.95*
Contact (B)	188.04	2	94.02	1.75
A X B	1,182.14	2	591.07	10.97*
Within (error)	7,759.56	144	53.88	
Total	9,988.94	149		

* $p < .001$

TABLE 6

SUMMARY OF ANALYSES OF VARIANCE ON SCORES FROM THE MALADAPTIVE BEHAVIORS OF THE PERCEIVED BEHAVIOR MEASURE

Source	SS	df	MS	F
Labeling (A)	33.60	1	33.60	1.03
Contact (B)	4.65	2	2.33	.07
A X B	128.03	2	64.02	1.96
Within (error)	4,710.71	144	32.71	
Total	4,876.99	149		

Note all of the values of F are non-significant

TABLE 7

SUMMARY OF MEANS AND STANDARD DEVIATIONS FOR THE SIX GROUPS

Group	Dependent Variable Measure									
	Evaluative Factor (neutral pt = 38.5)		Strength-Activity Factor (neutral pt = 14.0)		Perceived Behavior (neutral pt = 70.0)		Perc Adapt Behavior (neutral pt = 42.0)		Perc Maladapt Behavior (neutral pt = 28.0)	
	M	SD	M	SD	M	SD	M	SD	M	SD
1 (EMR Contact + Control)	48.04	4.72	16.68	2.15	77.84	9.00	46.76	5.99	31.08	6.96
2 (EMR Contact + Labeling)	45.72	3.92	15.72	2.03	75.08	9.24	44.36	7.05	30.72	4.19
3 (TMR Contact + Control)	49.32	5.86	16.80	2.95	77.60	10.00	46.80	6.92	30.80	6.72
4 (TMR Contact + Labeling)	43.72	6.07	15.40	2.00	70.64	10.10	39.76	10.20	30.88	5.52
5 (No Contact + Control)	48.08	5.78	16.40	2.10	75.24	10.34	45.56	7.95	29.68	5.31
6 (No Contact + Labeling)	43.52	7.90	15.56	2.43	73.44	11.04	40.64	8.84	32.80	5.27

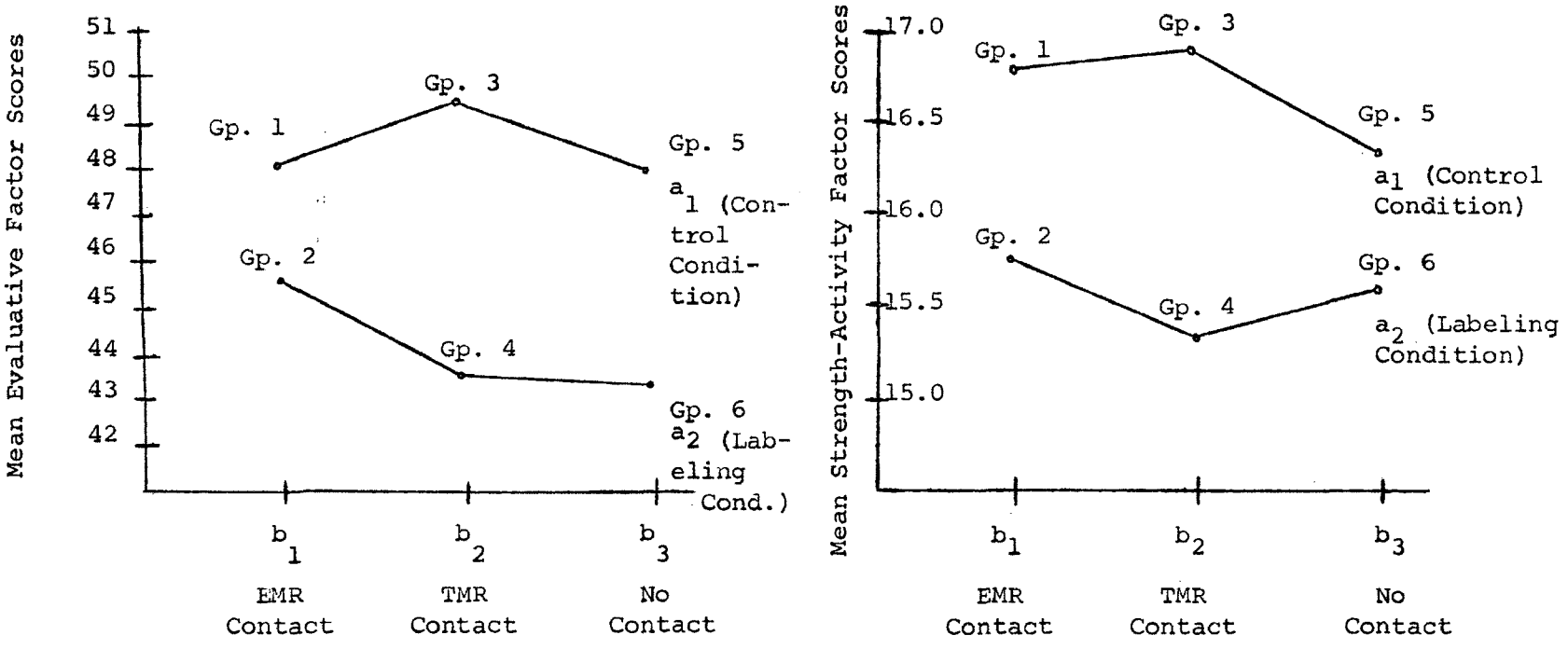

Figure 2

Graphical Representation of Group Means on the

Semantic Differential Measures

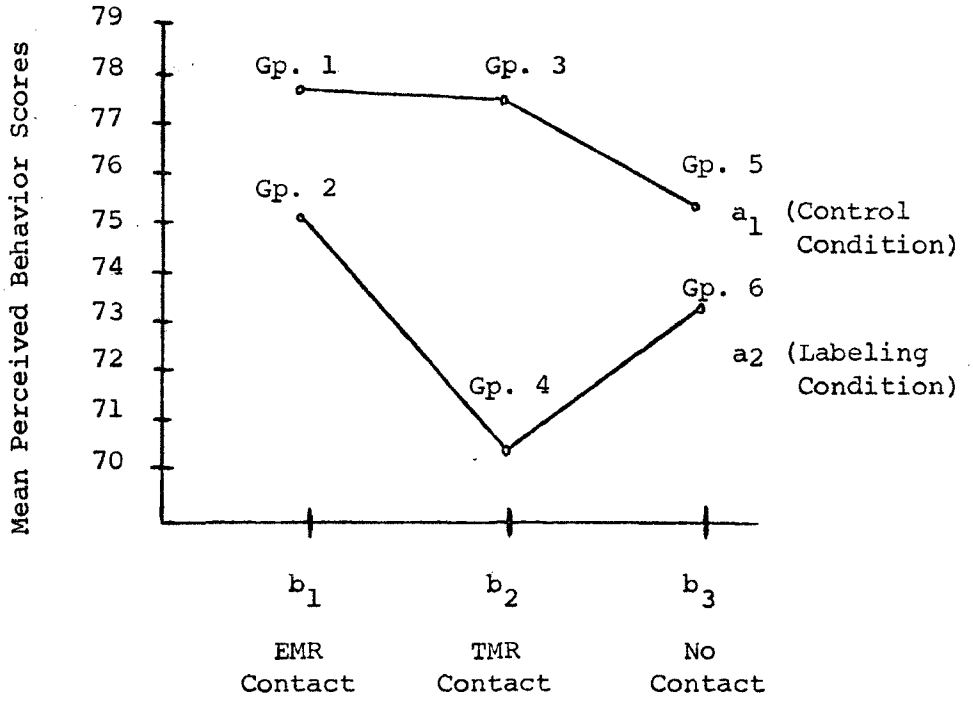

Figure 3

Graphical Representation of Group Means on the Perceived Behavior Measure

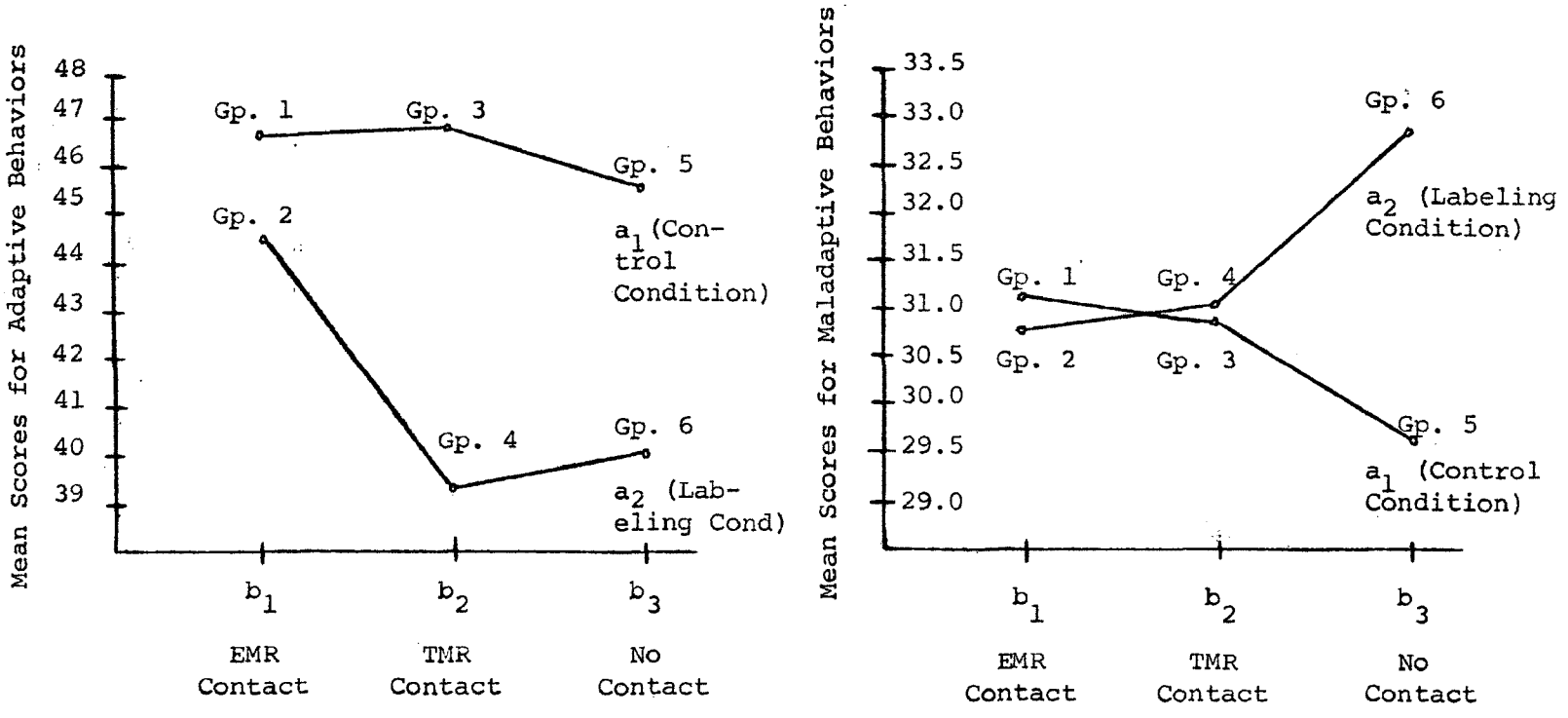

Figure 4

Breakdown of Perceived Behavior Measure into Adaptive and Maladaptive Behaviors

as had been predicted in hypothesis 3. Therefore, hypothesis 3 was not supported.

However, the Newman-Keuls procedure did provide some important information, apart from hypothesis 3. For the semantic differential Evaluative factor, the Newman-Keuls procedure (Appendix E) revealed that in the labeling condition, the scores for both Group 4 (TMR contact) and Group 6 (no contact) were significantly more negative than the highest three groups, which were all in the control condition (Groups 1, 3, and 5). Thus a labeling effect was present in the group which had contact with the TMR pupils and in the group where there was no contact. Since no significant differences were found between the two groups which had contact with EMR pupils (Group 1 vs. Group 2), it is concluded that a significant labeling effect did not take place in this group.

A tacit assumption in the design of this experiment was that the three groups in the control condition (Groups 1, 3 and 5) would not differ significantly from one another. This assumption was borne out on all of the measures used in this study. Thus, the students in all three groups tended to perceive the person in the control condition in approximately the same way.

For the semantic differential Strength-Activity factor, the Newman-Keuls procedure (Appendix F) revealed no significant differences between the six means. The trend for this measure (see Figure 2) was the same as for the Evaluative factor. It may be wondered how there can be both a significant main effect and a significant interaction, but no significant differences between any two means. This is a situation which happens

fairly infrequently. It is explained by the fact that the ANOVA includes all six means in an analysis to test a given effect while a Newman-Keuls procedure compares only two means at a time. On the Strength-Activity factor, no pair of means were significantly different using the Newman-Keuls procedure.

Utilizing the Newman-Keuls procedure with the perceived behavior measure (Appendix G) again revealed no significant differences between any pairwise comparisons of the six group means. The interaction from the plot (Figure 3), appears to reside in the mean for Group 4 (TMR contact and labeling condition).

As was noted with the ANOVA used for the perceived behavior measure, Ss' ratings of maladaptive behaviors did not differentiate between the person in the control condition and the person labeled mentally retarded. However, Ss' ratings of adaptive behaviors did differentiate between these two conditions. Accordingly, a separate Newman-Keuls procedure was utilized for each of these two factors of the perceived behavior measure (see Appendices H and I).

For the maladaptive behaviors, there were no significant differences between any pairwise comparisons of the six means. However, this measure was unique in that it was the only one in which the person labeled mentally retarded was rated more positively (although not significantly so) than the person in the control condition.

The pattern of the comparisons for the adaptive behaviors was exactly the same as that noted for the semantic differential Evaluative factor. Again, the labeling effect was strongest in the condition where subjects

had contact with TMR pupils (Group 3 vs. Group 4). A labeling effect was also present in the no-contact condition (Group 5 vs. Group 6). Finally, there was no labeling effect on the adaptive behavior measure in the groups where there was contact with EMR students (Group 1 vs. Group 2).

Summarizing the results of the Newman-Keuls comparisons for group means, it was found that there was no significant difference in the responding to the person who was labeled mentally retarded across the three contact conditions, (Groups 2, 4, and 6). Thus, hypothesis 3 was not supported. Additional findings were that significant differences did exist between responding to the person in the control condition and the person labeled mentally retarded for groups 3 and 4 (TMR contact) and groups 5 and 6 (no contact) on the semantic differential Evaluative factor and the adaptive behavior items of the perceived behavior measure. There were no significant differences between any pairwise comparison of means on the other measures.

Hypothesis 4 stated that those students who had contact with mentally retarded pupils in school would score higher (i.e., make a more positive commitment) on the commitment to involvement measure in comparison to non-contact normal peers. It will be recalled that on this measure Ss responded on a four-point scale ranging from not volunteering (scored 0), to volunteering once or twice a year (scored 1), once a month (scored 2), or once a week (scored 3). The results of a t-test indicated that there was a significant difference between the contact and no-contact groups ($t = 2.10$, $p < .05$, two-tailed test) but since the no

contact group (mean = 1.22) had a more positive commitment to involvement than the contact groups (mean = .80), this difference was not in the predicted direction. Thus, hypothesis 4 was not supported.

This was a surprising result. Accordingly, an analysis of variance and a Newman-Keuls procedure were employed to specify more clearly the differences among the three contact groups, i.e., EMR contact, TMR contact and no contact. A one-way ANOVA (see Table 8) showed that there was a significant difference between the three groups ($F = 3.10$, $p < .05$). The Newman-Keuls procedure for mean comparisons (see Appendix J) revealed that Ss who had no contact with mentally retarded pupils in school (mean = 1.22) were significantly more positive on the commitment to involvement measure than Ss having contact with TMR pupils (mean = .68). Ss having contact with EMR pupils (mean = .92) did not differ significantly from the other two groups.

The percentage of Ss who volunteered were as follows: 23 out of 50, or 46% of the Ss having contact with EMR pupils; 20 out of 50, or 40% of the Ss having contact with TMR pupils; and 30 out of 50, or 60% of the Ss having no contact with mentally retarded pupils in school. Thus, 73 out of 150, or 49% of the total sample of Ss commited themselves to some level of involvement with the mentally retarded.

Hypothesis 5 stated that there would be a statistically significant positive correlation between the Ss' expressed attitudes toward the mentally retarded, as measured by the semantic differential Evaluative factor, and their desired level of interaction with the mentally retarded, as measured by the commitment to involvement measure. In order to correlate these scores, all seventy-five Ss who had rated

TABLE 8

SUMMARY OF ANALYSIS OF VARIANCE ON SCORES FROM THE COMMITMENT TO INVOLVEMENT MEASURE

Source	SS	df	MS	F
Between (contact)	7.32	2	3.66	3.10*
Within	173.14	147	1.18	
Total	180.46	149		

* $p < .05$

the person labeled mentally retarded were put into one group. A Pearson product-moment correlation coefficient, r, was computed and showed that the relationship between these two variables was in the predicted direction, but the value of r (r = .11) was not statistically significant ($p < .30$). Therefore, hypothesis 5 was not supported.

Supplementary Analyses[1]

The F values for the B factor (contact) were extremely low in every ANOVA for every measure. This shows that the contact variable, of and by itself, was having no appreciable effect. Clearly, the contact variable was not a potent variable in this study. It was just this possibility which had occasioned the need for the supplementary questions included in section 4 of the student survey.

Section 4 of the subject's questionnaire (see Appendix D) was included to check the possibility that students in the school where there were no special education classes might nevertheless have had contact with mentally retarded children outside of school, and alternately, that students who attended schools where there were special education classes for the mentally retarded might not have actually known someone who was mentally retarded. The results of responding to Section 4 indicated the following percentage of Ss in each group who knew a child who was mentally retarded: Group 1, 18 out of 25 or 72%: Group 2, 22 out of 25 or 88%; Group 3, 20 out of 25 or 80%; Group 4, 23 out of 25 or 92%; Group 5,

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[1]Since predictions were not made beforehand, two-tailed tests were used for all of the statistical analyses of this section.

11 out of 25 or 44%; and Group 6, 16 out of 25 or 64%. Thus for the two schools which had special education classes for the mentally retarded (Groups 1, 2, 3, and 4), the proportion of Ss who knew a mentally retarded person was 83 out of 100 or 83%. For the school which had no special classes (Groups 5 and 6), the proportion who knew someone who was mentally retarded was 27 out of 50, or 54%. A z-value for testing the difference between these two proportions was computed ($Z = 7.25$) and found to be significant ($p < .01$). Therefore, it was concluded that going to a school where there were mentally retarded pupils significantly increased the likelihood that Ss would know a mentally retarded child.

However, there were obviously a large number of students in the non-contact school who did report having contact with mentally retarded persons. Therefore, the 75 Ss who rated the person who was labeled mentally retarded (Groups 2, 4, and 6) were dichotomized into two groups, those reporting contact ($N = 61$) and those reporting no contact ($N = 14$). The means for all 5 dependent variable measures were computed and compared by t-tests for significant differences. The results, summarized in Table 9, revealed no significant differences in the perception of the person labeled mentally retarded for the contact vs. non-contact groups for any of the measures. The trend of the group means suggested that these results were essentially random. The contact group was higher on 2 out of 5 measures, while the non-contact group was higher on the other three.

Various other supplementary analyses were performed in order to understand the results most clearly. The means for the individual items

TABLE 9

SUMMARY OF t-TESTS FOR MEAN COMPARISONS OF Ss REPORTING AND NOT REPORTING EXTRA-SCHOOL CONTACT

Measure	Contact Group Mean[a]	Non-Contact Group Mean[b]	Difference	t value
1. Semantic Differential Evaluative Factor	44.69	42.71	1.98	1.07
2. Semantic Differential Strength-Activity Factor	15.49	15.86	.37	.58
3. Adaptive Behaviors: Perceived Behavior Measure	42.20	38.93	3.27	1.26
4. Maladaptive Behaviors: Perceived Behavior Measure	31.25	32.43	1.18	.78
5. Commitment to Involvement Measure	.98	1.07	.09	.29

Note - None of the differences were statistically significant

[a] $N = 61$

[b] $N = 14$

of each measure were computed for all six groups and are provided in Tables 10 and 11. For each individual item, the neutral point is 3.5. Chi-square analyses were performed by looking at how many items for each of the groups fell below the neutral point. Scores above the neutral point are more positive than scores below the neutral point. The number of scores above and below the neutral point of a scale is an important criterion which can be completely missed by ANOVAS or mean comparisons. For example, let us consider that, for a scale where the neutral point is 3.5, most of the scores for the person labeled mentally retarded have clustered at around 3.4, while the scores for the person in the control condition have tended to cluster at 3.6. This difference might well be non-significant in an ANOVA, but it nevertheless provides some important information about Ss' perception of the person who was labeled mentally retarded.

Table 10 shows that, for all of the means for individual items of the semantic differential, only one item was below the neutral point for Group 2 (EMR contact and labeling condition), while there were only two items below 3.5 for both group 4 (TMR contact and labeling condition) and group 6 (no contact and labeling condition). Obviously, these were not significant differences. In addition, none of the item responses to the person in the control condition (groups 1, 3, and 5) fell below 3.5. Thus, no further information was gained from analyzing the item responses of the semantic differential, except the finding that responses to these items were in nearly every case above the neutral point, i.e., a positive response.

TABLE 10

SUMMARY OF MEANS FOR INDIVIDUAL ITEMS OF

THE SEMANTIC DIFFERENTIAL MEASURES

Item	Gp 1	Gp 2	Gp 3	Gp 4	Gp 5	Gp 6
Evaluative Factor						
1	4.28	4.60	4.28	4.32	4.64	4.24
2	4.72	4.92	4.72	4.80	5.04	4.60
3	4.20	4.16	4.52	3.72	4.00	3.96
4	4.20	4.36	4.32	3.76	4.56	4.56
5	3.68	4.00	3.68	3.84	4.00	3.60
6	4.52	3.96	4.80	4.04	4.40	4.04
7	4.48	3.20	4.52	3.68	3.96	2.80
8	4.28	3.76	4.44	3.00	4.04	3.72
9	4.60	4.48	4.52	4.48	4.72	4.64
10	4.64	4.44	4.84	4.48	4.56	4.08
11	4.44	4.04	4.35	3.60	4.40	3.44
Strength-Activity Factor						
12	4.84	4.32	4.92	4.36	4.68	3.96
13	3.68	4.04	4.08	3.84	3.80	3.72
14	4.00	3.60	3.92	3.76	3.72	3.56
15	4.16	3.76	3.96	3.44	4.12	4.20

TABLE 11

SUMMARY OF MEANS FOR INDIVIDUAL ITEMS OF THE PERCEIVED BEHAVIOR MEASURE

Item	Gp 1	Gp 2	Gp 3	Gp 4	Gp 5	Gp 6
1	4.28	4.20	4.12	4.04	4.44	4.00
2	3.76	3.52	3.80	2.96	3.92	3.76
3	3.56	3.84	3.72	3.40	3.52	3.16
4	3.84	3.56	3.64	3.00	3.60	3.44
5	3.28	4.28	3.76	4.04	3.24	5.16
6	3.80	4.16	4.08	4.44	4.04	4.76
7	4.92	4.16	4.60	3.44	4.92	3.44
8	4.24	4.20	4.28	4.20	4.04	4.64
9	3.20	2.24	3.16	2.36	2.64	2.32
10	4.04	3.80	3.96	4.16	3.36	4.12
11	4.44	3.72	4.20	3.52	3.84	3.28
12	3.76	3.56	3.52	3.12	3.60	3.24
13	3.48	3.92	3.88	3.40	3.80	3.76
14	3.52	3.36	3.88	3.44	3.20	2.80
15	4.36	4.04	4.12	3.16	4.20	3.40
16	3.84	3.88	3.64	3.48	3.80	3.68
17	3.96	4.12	4.24	3.32	3.96	4.04
18	3.80	3.48	2.88	3.12	3.80	2.56
19	3.80	3.52	4.24	4.56	3.48	4.00
20	3.80	3.80	3.72	3.32	3.76	3.88

However, for the perceived behavior measure, a significant difference was found. Table 12 shows the breakdown for the number of items above and below 3.5 in the three groups rating the person labeled mentally retarded. A complex chi-square analysis showed that these differences were significant ($X^2 = 10.42$, $p < .01$). Furthermore, simple chi-square analyses showed group 4 (TMR contact and labeling condition) to have a significantly greater number of items below the neutral point than did group 2 (EMR contact and labeling condition, $X^2 = 10.40$, $p < .005$). Similarly, the number of items below the neutral point for group 6 (no contact and labeling condition) was also significantly greater than group 2 (EMR contact and labeling condition, $X^2 = 4.40$, $p < .05$). Group 4 (TMR contact) did not differ significantly from group 6 (no contact, $X^2 = 1.60$, $p < .10$). Essentially, these results mirror those found in all of the ANOVAS and Newman-Keuls procedures reported earlier, i.e., the responses in Group 2 (EMR contact and labeling condition) were more positive than in either Group 4 (TMR contact and labeling condition) or Group 6 (no contact and labeling condition).

If the neutral point for an individual item is 3.5, then the neutral point for the entire scale of each measure can be found by multiplying the number of items in the measure by 3.5. After computing the neutral point for each measure, scores were dichotomized into contingency tables in order to compare the number of scores above and below the neutral point of each measure for the three groups rating the person labeled mentally retarded (see Table 13). No significant differences between any of the groups were found in using complex chi-square analyses for

TABLE 12

NUMBER OF ITEMS ABOVE AND BELOW THE NEUTRAL POINT (3.5) FOR THE GROUPS RATING THE PERSON LABELED MENTALLY RETARDED ON THE PERCEIVED BEHAVIOR MEASURE

Group	Criterion	
	<3.5	≥3.5
Gp 2	3	17
Gp 4	13	7
Gp 6	9	11

Note - Scores above the neutral point are more positive than scores below the neutral point.

TABLE 13

SUMMARY OF CHI-SQUARE CONTINGENCY TABLES FOR DICHOTOMIZATION OF SCORES ABOVE AND BELOW THE NEUTRAL POINT FOR EACH MEASURE

Measure	Group	Criterion		X^2 value[a]
		< Neutral Point	≥ Neutral Point	
1. Semantic Differential Evaluative Factor (neutral point = 38.5)	2	1	24	5.30
	4	2	23	
	6	6	19	
2. Semantic Differential Strength-Activity Factor (neutral point = 14.0)	2	3	22	.73
	4	5	20	
	6	5	25	
3. Adaptive Behaviors from Perceived Behavior Measure (neutral point = 42.0)	2	9	16	3.98
	4	16	9	
	6	12	13	
4. Maladaptive Behaviors from Perceived Behavior Measure (neutral point = 28.0)	2	5	20	1.32
	4	8	17	
	6	5	20	

Note - Scores above the neutral point are more positive than scores below the neutral point.

[a]None of the X^2 values were significant.

the 2 x 3 tables. The majority of the scores in the three groups were at or above the neutral point. It is important to look at the labeling effect in this context. The means for the groups rating the person labeled mentally retarded are consistently above the neutral point for both the entire measure (see Table 7) and the individual items of each measure (see Tables 10 and 11). An inspection of Table 13 reveals that a large majority of the individual scores paralleled this trend. The only exception to this trend occurred with the adaptive behaviors of the perceived behavior measure. On this measure, both the means for group 4 (TMR contact and labeling condition) and group 6 (no contact and labeling condition) and a majority of the individual scores in group 4 (TMR contact and labeling condition) fell below the neutral point. However, the results of Tables 7, 10, 11, and 13 show that, on the average, the person labeled mentally retarded was perceived positively on the dependent variable measures by a majority of the subjects in the sample.

Sex Differences

In organizing the data from the commitment to involvement measure, it was seen that very few boys were volunteering in comparison to girls. Accordingly, this hunch was checked. For the entire sample, the proportion of males volunteering was 37% as compared to a female volunteering rate of 61%. This difference was significant ($Z = 3.0$, $p < .05$). Similarly, the overall mean of the boys for the commitment to involvement measure was .72 as compared to 1.18 for girls. This difference was also significant ($t = 3.29$, $p < .01$).

The next step was to compare commitment to involvement scores for males vs. females in each of the three contact groups (see Table 14). The results of Table 14 show that while the scores for males were always lower than the scores for females in each group, males were only significantly lower than females in the group having contact with EMR pupils. Thus, it appeared that the overall male-female differences on the commitment to involvement measure were due in large part to an extremely low rate of volunteering by males in the EMR contact group.

Further information was provided by looking at the proportion of males and females volunteering in the three contact groups (see Table 15). Table 15 shows that the proportion of males in the EMR contact group who volunteered on the commitment to involvement measure was again very low (17%). Since a z-value for testing the significance of the difference between any two proportions could be computed rather easily, it was decided to investigate all of the pairwise comparisons of the six proportions. From elementary probability theory, the combination of six things taken two at a time resulted in 15 comparisons (see Table 16). Table 16 reveals that the proportion of males volunteering from the EMR contact group was significantly less than the proportion of females volunteering in each of the three contact groups. In addition, the proportion of males volunteering from the EMR contact group was also significantly less than the proportion of males volunteering from the no contact group. Finally, the proportion of males volunteering from the TMR contact group was significantly less than the proportion of females volunteering in both the EMR and no contact groups. All the other differences were non-significant.

TABLE 14

SUMMARY OF MEAN COMPARISONS ON THE COMMITMENT TO INVOLVEMENT MEASURE FOR MALES VS. FEMALES IN THE THREE CONTACT GROUPS

Group	Mean Scores on Commitment to Involvement Measure		Difference	t-value
	Males	Females		
EMR Contact	.39	1.37	.98	3.50*
TMR Contact	.64	.72	.08	.31
No Contact	1.03	1.50	.47	1.42

* $p < .05$

TABLE 15

SUMMARY OF THE PROPORTION OF MALES AND FEMALES VOLUNTEERING IN THE THREE CONTACT GROUPS

Group	Proportion of Volunteers	
	Males	Females
EMR Contact	17%	70%
TMR Contact	36%	44%
No Contact	53%	70%

TABLE 16

SUMMARY OF COMPARISONS OF MALE AND FEMALE RATES OF VOLUNTEERING IN THE THREE CONTACT GROUPS

Comparison					z value
1.	EMR contact males	(17%)	EMR contact females	(70%)	3.79**
2.	EMR contact males	(17%)	TMR contact females	(44%)	2.08*
3.	EMR contact males	(17%)	No contact females	(70%)	3.79**
4.	EMR contact males	(17%)	No contact males	(53%)	2.76*
5.	EMR contact males	(17%)	TMR contact males	(36%)	1.46
6.	TMR contact males	(36%)	EMR contact females	(70%)	2.43*
7.	TMR contact males	(36%)	No contact females	(70%)	2.43*
8.	TMR contact males	(36%)	TMR contact females	(44%)	.57
9.	TMR contact males	(36%)	No contact males	(53%)	1.31
10.	TMR contact females	(44%)	EMR contact females	(70%)	1.86
11.	No contact males	(53%)	No contact females	(70%)	1.21
12.	No contact males	(53%)	TMR contact females	(44%)	.64
13.	No contact males	(53%)	EMR contact females	(70%)	1.21
14.	No contact females	(70%)	EMR contact females	(70%)	no differ.
15.	No contact females	(70%)	TMR contact females	(44%)	1.86

* $p < .05$

** $p < .001$

Because differences in responding between males and females had not been predicted, it was decided that possible differences on the other measures should be investigated also. A summary of the means for males vs. females on the dependent variable measures is provided in Table 17. Since hypotheses regarding male-female differences were not planned before the experiment, two-tailed t-tests were employed to analyze the largest differences. There is a basic difference between selecting a difference at random and selecting only the largest differences among many. If one looks only at the largest differences after the experiment, the critical t-value is relatively easy to surpass. However, if the t-tests for the largest differences do prove to be non-significant, then one has failed to meet even the easiest test and random differences can be assumed. In the present case, the author examined the largest differences between the various means and found only one significant difference for one group on one measure. The difference between males and females on the semantic differential Evaluative factor for group 3 (TMR contact and control condition) was found to be significant ($t = 2.35$, $p < .05$), with males having more positive scores than females. However, since 36 means and 18 comparisons were involved, a significant difference on the basis of chance alone could be expected 1 out of 20 times. It is therefore concluded that the differences between the sexes on all of the measures except the commitment to involvement measure were essentially random.

TABLE 17

SUMMARY OF MEAN COMPARISONS ON THE THREE DEPENDENT VARIABLE MEASURES FOR MALES VS. FEMALES

Group	Dependent Variable Measure					
	Evaluative Factor		Strength-Activity Factor		Perceived Behavior	
	Male	Female	Male	Female	Male	Female
1	48.38	47.67	16.92	16.42	79.39	76.17
2	44.90	46.27	16.20	15.40	73.10	76.40
3	52.00	46.85	16.67	16.92	80.50	74.92
4	44.15	43.25	16.17	14.69	70.38	70.92
5	48.20	47.90	16.60	16.10	74.80	75.90
6	41.13	47.10	15.13	16.20	71.00	77.10

Chapter IV

DISCUSSION

This chapter is divided into two sections. The first section provides a basic summary and interpretation of the results. The second section relates those results to the other relevant studies that were presented in Chapter I, and discusses the implications of the study.

Interpretation of Results

In discussing the results of this study, a distinction must be made between interpretations of the two factors. The A factor (influence of labeling) involved a straightforward experimental design which manipulated an independent variable (presence or absence of a label) in order to see the results. The B factor (type of contact), on the other hand, involved a post hoc situation where the experimenter attempted to measure after the fact. Thus more caution is needed in interpreting the B factor, and any implications reached about the value of contact in enhancing attitudes or behaviors toward the mentally retarded should be seen as tentative.

It seemed apparent in this study that, on the average, having the added information that a person was in special education classes for the mentally retarded caused a decrement in Ss' responses on the three dependent variables. Thus, the attitudes expressed toward the person who was labeled mentally retarded were less positive than the attitudes

expressed toward the person in the control condition. The Ss also perceived the behavior of the person labeled mentally retarded to be less positive than the person in the control condition.

However, several qualifications are necessary to understand this phenomenon. First of all, while the trend was consistent for all contact groups on all three measures, the various group comparisons revealed that the labeling effect was not all-pervasive. There was no labeling effect in the group which had contact with EMR pupils. And, for the TMR contact group and the no contact group, a significant labeling effect was found only on the semantic differential Evaluative factor and the perceived adaptive behavior measure. For the Strength-Activity factor, perceived maladaptive behaviors, and the entire perceived behavior measure, differences in responding to the persons in the control and labeling conditions were so small that they were significant only for the average of the three groups responding to each condition and did not characterize any particular groups as demonstrated by the Newman-Keuls procedure for comparing group means.

Furthermore, while the label did cause a decrement in Ss' responses, the scores on the dependent variables were consistently above the neutral point of each measure for the person labeled mentally retarded. Only when the perceived behavior measure was broken down into adaptive and maladaptive behaviors, did the scores on any measures fall below the neutral point for the person labeled mentally retarded. It is important to note that it was a realistic situation for subjects to attribute differences in adaptive behaviors to a person labeled mentally retarded. As

was pointed out in Chapter I, adaptive behavior is a criterion for distinguishing between mentally retarded individuals and the normal population. If subjects did not attribute differences in adaptive behavior level to the person labeled mentally retarded, it would have to be questioned whether or not they were attending to the task of the experiment, or if they knew anything at all about mental retardation. Since significant differences in responding to the person labeled mentally retarded and the person in the control condition were found on the adaptive behaviors of the perceived behavior measure, it was concluded that subjects did attend to the task and did have a realistic understanding of at least some aspects of mental retardation. However, it appeared that subjects could attribute differences without devaluing the mentally retarded person. In fact, as far as maladaptive behaviors are concerned, the person labeled mentally retarded was actually rated more positively (although not significantly so) than the person in the control condition for the TMR contact and no contact groups. For the EMR contact groups, there was also a non-significant difference between the labeling and control conditions for perceived maladaptive behavior. Apparently, the person who was labeled mentally retarded was not perceived as behaving in a way which infringed on the rights of others (e.g., interfering with activities, lying or cheating, stealing, refusing to take turns, etc.). At least with the Ss of this study, the popular stereotype of the mentally retarded being intrinsically a menace to society seems to be breaking down. This was a very positive finding. In summary, the person who was labeled mentally retarded in this study was perceived realistically and positively. In

this context, the significant labeling effect and Label X Contact interaction, can be taken to mean that the person labeled mentally retarded was not perceived as positively as the person in the control condition.

The significant Label X Contact interaction indicated that the labeling effect noted above was not pervasive. The effect of the label varied with the type of contact experienced by the subject. Specifically, there was no labeling effect where subjects had experienced contact with EMR pupils. It was tempting to conclude, then, that contact with EMR pupils in school, resulted in more positive attitudes toward the mentally retarded than did either contact with TMR pupils or no contact. Unfortunately, the Newman-Keuls comparisons revealed no significant differences between these three groups. All that can be said is that: a) there was a non-significant trend whereby those students having contact with EMR pupils had more positive responses than the other two groups; and b) there was no labeling effect in the school where students had contact with EMR pupils. In terms of the labeling effect only, contact with the more severely retarded TMR pupils produced the same results as no contact at all.

The picture regarding the effects of contact became even more clouded with the results of the supplementary analyses. Based on the subjects' self report, there were no reliable differences between those subjects who knew a mentally retarded person and those who did not. However, this analysis was somewhat hampered by virtue of the fact that there were only 14 out of 75 subjects who reported that they did not know a mentally retarded person.

Finally, the results of the commitment to involvement measure were strikingly paradoxical as far as contact was concerned. It had been predicted that those subjects who had contact with the EMR and TMR pupils would make a more positive commitment to involvement with the mentally retarded than would students having no contact. In fact, the highest level of commitment to involvement was found in the no contact group. Those students having contact with TMR pupils were significantly lower than the no contact group. Several interpretations are possible. Perhaps contact with TMR pupils was aversive and discouraged further contact. Perhaps the students having contact with TMR pupils had already had ample opportunity for involvement, even to the point of satiation, whereas this would be a novel and unique experience for the no contact group. Also, as was pointed out at the beginning of this chapter, since the contact variable was a post hoc design, it was possible that differences in responding by the TMR contact group were due to a totally unrelated cause which was unknown to the author, such as the religious background of the three contact groups.

It was also difficult to know why there was a very significant difference at one school between rates of volunteering on the commitment to involvement measure for males vs. females. Males were significantly lower than females at the school where there was contact with EMR pupils. It is conceivable that volunteering could have been affected by developmental differences between males and females, but this would not explain why the phenomenon was present at only one school.

It does seem clear that the commitment to involvement measure was measuring something distinct from the other measures. It correlated only

mildly with expressed attitudes (r = .11) and could have been affected by a host of other variables such as novelty of the required task, differences between males and females, or prior history of the subjects. The low correlation between expressed attitudes and scores on the commitment to involvement measure is consistent with other research generally showing that paper-and-pencil measures of attitudes do not correlate highly with actual overt behavior. Certainly, the present study points up the need for controlled studies investigating subjects in interaction with the mentally retarded.

One other finding in the present study seems particularly worthy of note. For the entire sample, 73 out of 150, or 49% of the Ss volunteered to commit themselves to some form of involvement with the mentally retarded. Of the 73 volunteers, 23 wanted to work once or twice a year, 32 wanted to work once a month, and 18 commited themselves to a weekly involvement. These results show that a large number of young adolescents are interested in the mentally retarded and want to become involved with them. In the context of self-control presented in Chapter II, 49% of the Ss opted for a commitment strategy which would allow them to interact with the mentally retarded. The conceptualization of reversals of preference over time offered by Rachlin and Green (1972) would posit that when the time for attending an activity with the mentally retarded was actually, at hand, other activities such as parties, football games or dances might have more appeal. Without a commitment strategy, there might be little contact with the mentally retarded. However, persons who make a definite commitment to involvement with the mentally retarded have a strategy which allows them to manage their own behavior in order to offset such possible

reversals of preference. This model may have definite application for increasing contact between normal peers and the mentally retarded. One of the greatest challenges facing professionals in the field of special education is to mobilize the positive interest of normal peers towards the mentally retarded in such a way that both groups benefit from this interaction.

Relationship of Results to Previous Theory

The present study definitely adds to our knowledge about the effects of labeling. It will be recalled that Jaffe's study (1966) showed no labeling effects when the stimulus used to elicit Ss' responses was very positive, i.e., the person was married and held a job. Guskin's studies (1962, 1963) showed a labeling effect only when the other information about the person presented either relevant cues to mental retardation (Guskin, 1962) or facilitated distortion by describing primarily inappropriate behaviors (Guskin, 1963). The present study demonstrated that a labeling effect could take place even with a stimulus which did not contain either relevant cues to mental retardation or primarily negative information that would facilitate a distorted perception of the stimulus. The stimulus used in the present study provided minimal information and did not emphasize either positive or negative characteristics. The study gives strong support to the recent findings by Salvia, Clark, and Ysseldyke (1973) that a label seems to be rejected in the light of conflicting information. However, if a label is believable, the stereotype is retained. The stimulus used in the present study gave no information which was dissonant with mental retardation. In that sense, then, the label was clearly believable.

It seems very likely that Salvia et al.'s (1973) findings offer the best explanation of the labeling effects. In Jaffe's (1966) study, the label mentally retarded was probably not very believable. The base rate of mentally retarded persons who are married and working on a job that supports their family is a low one. Thus, Jaffe did not find a labeling effect. On the other hand, in Guskin's studies, his presentation of relevant cues to mental retardation (1962) and his descriptions of a person's inappropriate behaviors (1963) make a mentally retarded label very believable. Thus, Guskin did find a significant labeling effect. The evidence currently available suggests this conclusion: if Ss find a label to be credible in the total context of the stimulus information provided to them, then this information seems to cause their perception of the labeled person to be less positive than their perception of an identical person who is not labeled.

Perhaps even more important, however, it should be stressed that labeling seems to produce differences in perception which are consonant with reality, rather than to have some kind of devastating effect upon Ss' perception that blocks out reality. The present study supports Jaffe's (1966) contention that subjects can attribute differences to the mentally retarded without devaluing them. Though the person labeled mentally retarded in the present study was, on the average, rated significantly lower than the person not so labeled, the differences were small and the overall ratings given to the labeled person were in almost every case, positive, i.e., above the neutral point of the scale used.

The present study also extends our information about labeling to a new subject group. The subjects in this study were the youngest (mean =

age = 13.41) ever to participate in an experiment involving labeling. Previous studies have consistently used university undergradutes or high school seniors. Results with the younger subjects of this study were similar to those of older subjects. However, studies of younger children (grades 1-6) and adults over 30 are completely lacking and should be carried out in the future.

To summarize the results regarding the influence of labeling, the author feels that professionals in the field should use caution in talking about the negative effects of labeling. The results of earlier investigations and the present one do not support this contention. Labeling does not appear to automatically block out reality. Subjects have thus far indicated that a label is merely another piece of information to be processed in a total context. A label has to be believable in this total context in order to have any effect. With regard to attitudes, the "effect" in the present study was small and overall attitudes were still positive. With regard to perceived behavior, the effects were larger and did fall below the neutral point of the scale for adaptive behavior. However, since mentally retarded persons do have a significantly lower level of adaptive behavior, this finding is consonant with reality. Finally, a cautious implication of the present study is that for Ss having certain kinds of experiential contact, e.g., contact in school with EMR pupils, there is no significant labeling effect at all. It is hypothesized that this kind of contact may minimize the distortion usually associated with the stereotype and allow for a more free and open perception of the mentally retarded person. This hypothesis is an

empirical question which merits further research in order to evaluate the effects of contact with the mentally retarded.

As far as the second factor, contact, is concerned, no significant results were found, except that a labeling effect did not take place in the school in which there was contact with EMR pupils. Paradoxically, previous contact with TMR pupils was found to be associated with a lower desire for contact in the future in comparison to the no contact group. The lack of previous studies dealing with TMR pupils was noted in Chapter I. The lower desire for involvement and the consistent trend on the other measures for students having contact with TMR pupils to be lower than students having contact with EMR pupils suggests that further studies in this area should be done. Hall's (1972) finding regarding negative shifts in attitude following contact with the stark realities of institutional life for the mentally retarded, (presumably a more severely retarded population than EMR pupils) gives some additional support for the need for further work with TMR pupils.

Whereas more positive attitudes as a result of contact have been reported by Harrelson (1970), Yuker, Block and Younng (1970), Morin (1969) and on one of four measures by Jaffe (1966), not a single study regarding the positive influence of contact with special education students in school was found. On the contrary, Strauch's (1970) work showed no differences on the basis of contact in school and the numerous sociometric studies in schools, which were reported in Chapter I, portrayed the mentally retarded as the least accepted and/or actively rejected by their normal peers. The present study supports Strauch's finding that there

were no differences in Ss' attitudes toward or perception of the mentally retarded on the basis of contact in school.

Since only one other study regarding attitudes as influenced by contact in schools had been done, it was important to replicate Strauch's work. However, future studies must take account of the fact that contact in school is confounded with contact from other situations. Fully 54% of the students in the non-contact school of the present study reported that they knew someone who was mentally retarded. While this proportion is significantly lower than the proportion for students in the contact schools (83%), it could easily account for a blurring of any possible differences attributable to contact.

It is possible that educators have overestimated the benefits of contact with handicapped students in school. The author thinks it is more likely that they have stressed contact per se and have neglected the quality of that contact. This conclusion is similar to that reached by Strauch (1970), who has discussed the importance of developing and evaluating strategies which plan social contact in schools according to the suggestions of social psychologists. For example, Allport (1954), in his statement on contact with minority groups, clearly distinguished between the quality of various kinds of contact:

> The nub of the matter seems to be that contact must reach below the surface in order to be effective in altering prejudice. Only the type of contact that leads people to do things together is likely to result in changed attitudes. It is the cooperative striving for a goal that engenders solidarity. So, too, in factories, neighborhoods, housing units, schools, common participation and common interests are more effective than the bare facts of equal contact (p. 264).

There is evidence that social acceptance of unpopular EMR pupils within a special class can be improved by a method incorporating Allport's ideas. Chennault (1967) set up an experiment whereby the two least popular EMR pupils and the two most popular EMR pupils worked together in producing a skit. Using a pre-test, post-test, control group design, Chennault reported that the social positions in the special classroom of the least popular pupils improved significantly after treatment. The unpopular child's judgment of his own social status in the classroom also significantly increased as a result of the organized, cooperative group activities.

It appears that there are three important directions to go in order to uncover meaningful information about the influence of contact. Strauch (1970) has discussed the importance of developing strategies which incorporate treatments like the one used by Chennault (1967) above with normal and mentally retarded persons. A second direction would be to randomly assign naive subjects (i.e., those who have had no appreciable contact with the mentally retarded) to controlled contact conditions that involve qualitatively different kinds of contact with persons from each of the major levels of mental retardation. For example, one kind of contact might be warm and affectionate, another could be task-oriented, a third could be a teaching situation, etc. Finally, the third important direction is to develop behavioral indices of acceptance as an alternative to the paper-and-pencil techniques now used.

These suggestions could also be helpful in further research with labeling. The results of the present study suggest that the label mentally retarded can have a distorting effect, but that with certain kinds

of contact, such as contact with EMR pupils in school, this distortion could be minimal. Thus, one criterion for evaluating different kinds of contact would be to investigate each one's potential for minimizing the stigma usually associated with the stereotype.

Surely, additional research with labeling must investigate other subject populations outside of schools. What subtle changes in acceptance take place for example when parents are first told that their child is "mentally retarded"? Or what happens in a neighborhood when a child who was perceived as "a little different" is given the label "mentally retarded"? Perhaps a label can have positive effects as when our fear of a person who behaves very differently from ourselves is quieted by the knowledge that he is mentally retarded, and not therefore innately dangerous. It is even possible that simply by understanding the process of labeling better, persons will be better able to look beyond the stereotype.

A fruitful area for further research with labels would be to study the effect of including more detailed information about positive and negative behaviors in the stimulus sketch that would closely approximate the behavior of most normal twelve-year-old boys. For example, a number of high base rate positive behaviors such as "takes out the garbage" could be combined with high base rate negative behaviors such as "doesn't like to clean his room". To the extent that such a sketch did indeed describe the behavior of an average twelve-year-old boy, then it might be predicted that there would not be a labeling effect, because the label mentally retarded should not be believable in this context. If the label

did have a distorting effect in this kind of study, the conclusions of all the studies reported herein would require a complete reformulation in that current studies suggest that a label can have a distorting effect only when the other information provided in the context either facilitates such a distortion (Guskin, 1963), or is at least believable in that context (Salvia, et al., 1973). Because such a study could also strongly confirm the conclusions now made in the labelingresearch, it should be undertaken.

Similarly, the conclusion from the literature (e.g., Jaffe, 1966) that a person labeled mentally retarded can be perceived realistically and still not be devalued because of being mentally retarded is an empirical question that deserves a more rigorous test. Thus, a sketch with certain specified behavioral areas could be constructed and the expected base rates for normal twelve-year-old boys could be given for each area in the control sketch, while the expected behavioral level in each area for a mentally retarded person (e.g., I.Q. of about 50) could be given in the labeling condition. Here the real differences between the two levels of competency would be clearly spelled out. It could then be ascertained if the person labeled mentally retarded could still be perceived realistically without his worth as a person being devalued.

A third important study would be to use a sketch that accurately describes the behavioral level of a mentally retarded person and then compare Ss' responding when the label mentally retarded is present and absent in this sketch. Such a study might give some indication of how mentally retarded persons would be perceived if they were not labeled,

and should complement the kind of information gained in the two hypothetical studies outlined above.

The author feels that it is an important goal for professionals in the field of mental retardation to be able to impart a realistic understanding of the mentally retarded in terms of their assets and deficiencies without a concomitant devaluing of the worth of the person. The suggestions for further research that were provided above could begin to tell us to what degree the distortion effect of the label mentally retarded would interfere with this goal.

Obviously, much more research is needed in this area. The findings presented herein suggest that the seventh and eighth grade students perceived a mentally retarded person realistically and positively, though not as positively as a person not so labeled. They also indicate that contact with mentally retarded pupils in school has no significant effect upon these subjects' perception of a mentally retarded person in comparison to subjects who have had no such contact in school. In Chapter I several educators were quoted as making a case for the benefits of integrating the special education students into a public school. This kind of contact is commonly believed to help both the special education class pupil and the normal peers. At the present time, evidence demonstrating these benefits in the normal peer group is lacking. It is not the author's contention that the benefits of contact are nonexistent. However, further research is necessary to show how to effectively implement social contact in order to reap these benefits.

Chapter V

SUMMARY

The present research utilized 150 seventh and eighth grade students in a 2 x 3 factorial design in order to investigate Ss' perception of special education students. With the first factor (labeling), one half of the subjects rated a person described to them in a short sketch, and the other half of the subjects rated an identical sketch with the added information that the person attended special education classes for the mentally retarded. For the second factor (contact), subjects were divided into three groups on the basis of the kind of contact with mentally retarded pupils in special education that was present in their school. The schools used in this study each represented a distinct contact condition, i.e., contact with EMR pupils, contact with TMR pupils or no contact. In the main part of the study, subjects rated the person described in their sketch by means of three dependent variables (semantic differential Evaluative factor, semantic differential Strength-Activity factor, and a perceived behavior measure), in order to insure that results were not an artifact of any one measure. A fourth dependent variable was also included to compare differences in the three schools in the desired level of interaction with mentally retarded persons. On this measure, Ss had the opportunity to commit themselves to involvement with the mentally retarded on a four-point scale ranging from not volunteering to volunteering once or twice a year, once a month, or once a week.

Obtained results demonstrated that subjects perceived a mentally retarded person realistically and positively, though not as positively as a person not so labeled (significant labeling effect). Contact with mentally retarded students in school had no effect on Ss' perception of a person labeled mentally retarded, although a significant Label X Contact interaction was found, wherein the labeling effect did not take place in the school where there was contact with EMR pupils. These results were consistent with previous research, i.e., the labeling studies by Jaffe (1966), Guskin (1962, 1963), Salvia, Clark and Ysseldyke (1973) and Strauch's (1970) investigation of school contact with EMR pupils.

It was concluded that: 1) a label tends to be evaluated in the total context of reality; and 2) that contact in school with the mentally retarded, of and by itself, is not sufficient to influence more positive attitudes toward the mentally retarded. Suggestions for further research with the contact variable indicate a need to provide better control of contact and to develop behavioral measures of acceptance. Further research with labels should investigate other subject populations and should provide more detailed stimulus information about positive and negative behaviors and then attempt to systematically vary this information across several levels of competency.

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APPENDIX A

STUDENT SURVEY: SEMANTIC DIFFERENTIAL MEASURES

STUDENT SURVEY

TO ALL STUDENTS:

This is part of a survey of 7th and 8th grade students that is being taken in several Missoula schools. The survey is not related to your school work. There are no right or wrong answers. Your responses will not be shown to anyone, so give your own ideas and feelings.

Before starting, please give the following information:

1. Male _____ Female _____ (check one)
2. Age _____ years
3. Grade _____
4. School _____

At the bottom of the page is a short sketch of a person. Read it carefully so that you understand it well. Try to use the information in the sketch to come as close as possible to an accurate description of what you think this person is like. When you have read the sketch of Tom Randall several times, look up.

Sketch of Tom Randall

Tom Randall, a twelve-year-old boy, is of average height and weight. He attends (a local Missoula school/ special education classes for the mentally retarded). He has one sister and one brother. Like many boys Tom's age, his mother describes his behavior in this way: "When he is good he is very good, but when he is bad he is terrible." Tom presents a neat appearance. Although he has his share of problems, things seem to be going all right for him.

There are four sections to this survey. When you have completed an entire section, put your pencil down and stop. Do not proceed to the next section or work backwards. Read the directions carefully at the beginning of each section and ask any questions that you may have before beginning. Now read directions for Section 1.

SECTION 1

DIRECTIONS: Now that you are familiar with Tom Randall, please consider him in relation to the adjectives of this section and rate him on each of the scales. Here is an example of how you are to use these scales:

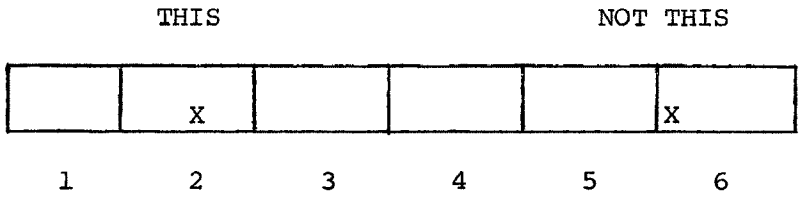
EXAMPLE:

1 2 3 4 5 6

1. If you feel that Tom Randall is EXTREMELY neat you would mark an X in the first box.
2. If you feel that he is QUITE neat (but not extremely), mark an X in the 2nd box.
3. If you feel he is only SLIGHTLY neat, mark 3.
4. If you feel he is only SLIGHTLY sloppy, mark 4.
5. If you feel he is QUITE sloppy (but not extremely), mark 5.
6. If you feel he is EXTREMELY sloppy, mark 6.

IMPORTANT:

1. Place your check-marks in the middle of the boxes, not in the boundaries.



2. Be sure you check every scale, even if it seems unusual to you.
3. Never put more than one check mark on a single scale.
4. Don't spend more time than a few seconds marking each scale. It is the first idea that comes to your mind that we want. However, please do not be careless, because we want your true impressions.
5. Now, read the paragraph about Tom Randall one more time. Form a picture of him in your mind. Then check the scales quickly.

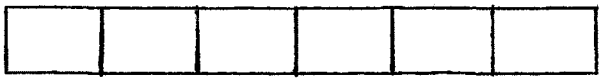
SKETCH OF TOM RANDALL

Tom Randall, a twelve-year-old boy, is of average height and weight. He attends (a local Missoula school/special education classes for the mentally retarded). He has one sister and one brother. Like many boys Tom's age, his mother describes his behavior in this way: "When he is good he is very good, but when he is bad he is terrible." Tom presents a neat appearance. Although he has his share of problems, things seem to be going all right for him.

1. Valuable  Worthless

1 2 3 4 5 6

GO ON TO NEXT PAGE

2. Clean  Dirty

1 2 3 4 5 6

3. Tasteful  Distasteful

1 2 3 4 5 6

4. Warm  Cold

1 2 3 4 5 6

5. Deep  Shallow

1 2 3 4 5 6

6. Easy to get along with  Hard to get along with

1 2 3 4 5 6

7. Self-reliant  Dependent

1 2 3 4 5 6

8. Reliable  Unreliable

1 2 3 4 5 6

GO ON TO NEXT PAGE

9. Neat  Sloppy

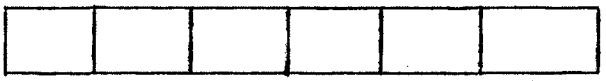
1 2 3 4 5 6

10. Not Dangerous  Dangerous

1 2 3 4 5 6

11. Employable  Unemployable

1 2 3 4 5 6

12. Active  Passive

1 2 3 4 5 6

13. Large  Small

1 2 3 4 5 6

14. Independent  Suggestible

1 2 3 4 5 6

15. Strong  Weak

1 2 3 4 5 6

STOP! DO NOT TURN PAGE

APPENDIX B

STUDENT SURVEY: PERCEIVED BEHAVIOR MEASURE

SECTION 2

DIRECTIONS: This section has to do with things that people do. For example, some people study a lot. Others do not. For each of the behaviors below you are to indicate whether or not you think that Tom Randall does this. This is how you mark each behavior:

1. If you are EXTREMELY SURE he does this, mark an X in the first box.
2. If you are QUITE SURE he does this, mark 2.
3. If you are SLIGHTLY SURE he does this, mark 3.
4. If you are SLIGHTLY SURE he does not do this, mark 4.
5. If you are QUITE SURE he does not to this, mark 5.
6. If you are EXTREMELY SURE he does not do this, mark 6.

Work quickly. Mark the first choice that comes to your mind for each behavior.

1. Has table manners that are acceptable

Extremely sure he does | | | | | | | Extremely sure he does not

1 2 3 4 5 6

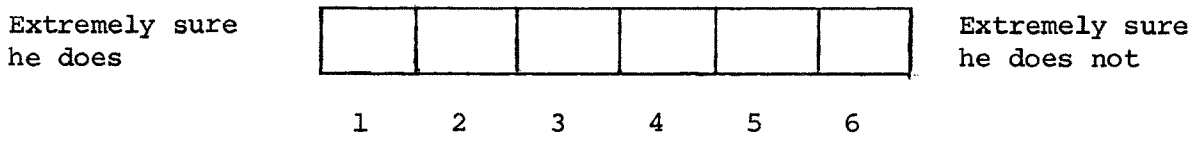
2. Interfers with others' activities

Extremely sure he does | | | | | | | Extremely sure he does not

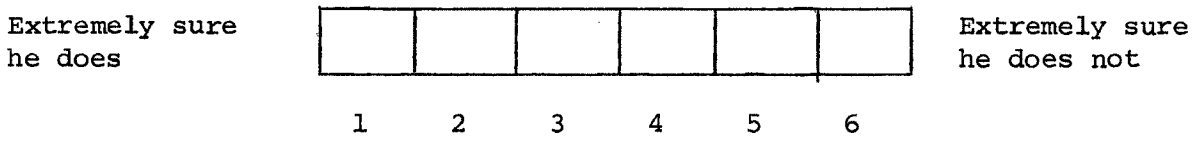
1 2 3 4 5 6

GO ON TO NEXT PAGE

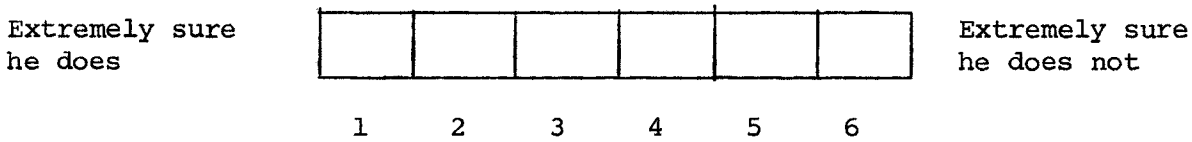
3. Has good posture when walking, sitting and standing



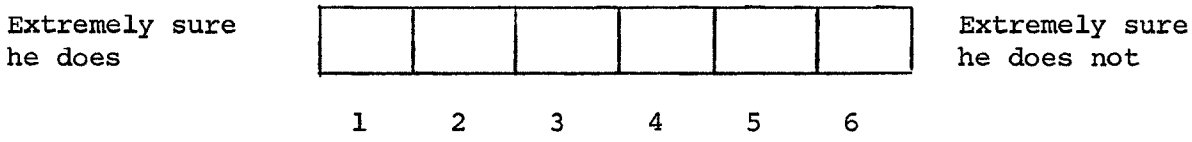
4. Uses telephone and directory adequately



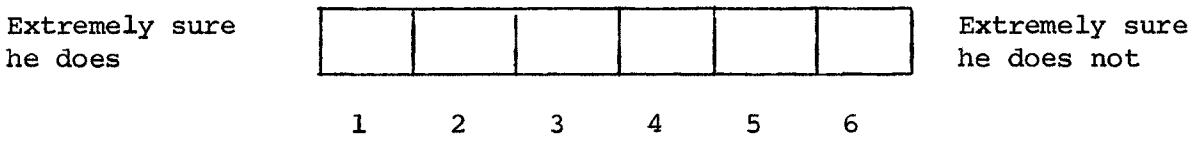
5. Teases or gossips about others



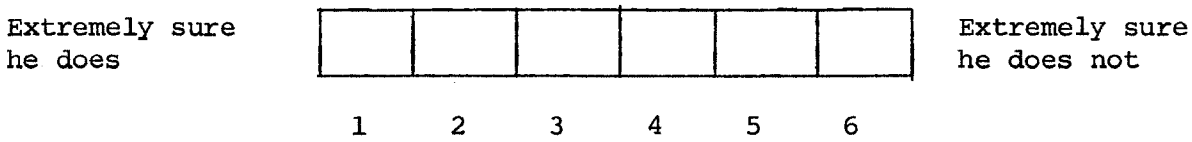
6. Lies or cheats



7. Can walk and run without difficulty



8. Takes others' property without permission



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9. Buys own clothing accessories

Extremely sure he does | | | | | | | Extremely sure he does not

1 2 3 4 5 6

10. Refuses to take turns

Extremely sure he does | | | | | | | Extremely sure he does not

1 2 3 4 5 6

11. Uses speech that is generally clear and understandable

Extremely sure he does | | | | | | | Extremely sure he does not

1 2 3 4 5 6

12. Tells time by clock or watch correctly to the minute

Extremely sure he does | | | | | | | Extremely sure he does not

1 2 3 4 5 6

13. Misbehaves in group settings

Extremely sure he does | | | | | | | Extremely sure he does not

1 2 3 4 5 6

14. Cleans room well, including sweeping, dusting and tidying

Extremely sure he does | | | | | | | Extremely sure he does not

1 2 3 4 5 6

GO TO THE NEXT PAGE

15. Can perform a job requiring the use of tools

Extremely sure he does | | | | | | | Extremely sure he does not

1 2 3 4 5 6

16. Concentrates on tasks and carries them to completion

Extremely sure he does | | | | | | | Extremely sure he does not

1 2 3 4 5 6

17. Offers assistance to others

Extremely sure he does | | | | | | | Extremely sure he does not

1 2 3 4 5 6

18. Is timid and shy in social situations

Extremely sure he does | | | | | | | Extremely sure he does not

1 2 3 4 5 6

19. Blames own mistakes on others

Extremely sure he does | | | | | | | Extremely sure he does not

1 2 3 4 5 6

20. Very dependable -- always takes care of personal belongings

Extremely sure he does | | | | | | | Extremely sure he does not

1 2 3 4 5 6

STOP! DO NOT TURN PAGE

APPENDIX C

STUDENT SURVEY: COMMITMENT TO INVOLVEMENT MEASURE

SECTION 3

DIRECTIONS: Volunteers are needed for services in Missoula who will work with kids from special education classes for the mentally retarded. Being a volunteer gives you and mentally retarded persons the chance to play together, work together, and generally do lots of things together. If you want to become a volunteer, please mark an X in the first box below and indicate the amount of time you would like to spend. If you do not want to be a volunteer, mark an X in the second box. Volunteers will be contacted at a later date. No matter which box you check, be sure to sign your name at the bottom of the page.

☐ 1) I want to volunteer

Amount of time: (Check A, B, or C)

_____ A. Once or twice a year for special projects

_____ B. About once a month

_____ C. Regularly -- once a week

☐ 2) I do not wish to volunteer

NAME _____

STOP! DO NOT TURN PAGE

APPENDIX D

STUDENT SURVEY: SUPPLEMENTARY QUESTIONS

SECTION 4

DIRECTIONS: These are the last two questions of the survey. Be sure to answer both questions either yes or no by marking an X in the correct box.

1) Do you know any children who are mentally retarded?

☐ YES

☐ NO

2) Have you ever gone to a school in which there was a special education class for the mentally retarded?

☐ YES

☐ NO

APPENDIX E

SUMMARY OF NEWMAN-KEULS PROCEDURE FOR MEAN COMPARISONS OF SEMANTIC DIFFERENTIAL EVALUATIVE FACTOR SCORES

SUMMARY OF NEWMAN-KEULS PROCEDURE FOR MEAN COMPARISONS OF SEMANTIC DIFFERENTIAL EVALUATIVE FACTOR SCORES

Group Means in order	Gp 6 43.52	Gp 4 43.72	Gp 2 45.72	Gp 1 48.04	Gp 5 48.08	Gp 3 49.32
43.52		.20	2.20	4.52	4.58	5.80
43.72			2.00	4.32	4.38	5.60
45.72				2.32	2.38	3.60
48.04					.04	1.28
48.08						1.24
49.32						

Truncated range r	2	3	4	5	6
q . 95 (r, 144)	2.77	3.32	3.63	3.86	4.03
q . 95 (r, 144) $\sqrt{\frac{MS\ error}{N}}$	3.02	3.62	3.96	4.21	4.39

	Gp 6	Gp 4	Gp 2	Gp 1	Gp 5	Gp 3

Note - Any two means not underscored by the same line are significantly different, $p < .05$.

APPENDIX F

SUMMARY OF NEWMAN-KEULS PROCEDURE FOR MEAN COMPARISONS OF SEMANTIC DIFFERENTIAL STRENGTH-ACTIVITY SCORES

SUMMARY OF NEWMAN-KEULS PROCEDURE FOR MEAN COMPARISONS OF SEMANTIC DIFFERENTIAL STRENGTH-ACTIVITY SCORES

Group Means in order	Gp 4 15.40	Gp 6 15.56	Gp 2 15.72	Gp 5 16.40	Gp 1 16.68	Gp 3 16.80
15.40		.16	.32	1.00	1.28	1.40
15.56			.16	.84	1.12	1.24
15.72				.68	.96	1.08
16.40					.28	.40
16.68						.12
16.80						

Truncated range r	2	3	4	5	6
q . 95 (r, 144)	2.77	3.32	3.63	3.86	4.03
q . 95 (r, 144) $\sqrt{\frac{\text{MS error}}{N}}$	1.22	1.46	1.60	1.70	1.77

	Gp 4	Gp 6	Gp 2	Gp 5	Gp 1	Gp 3

Note - None of the differences exceed the critical values.

APPENDIX G

SUMMARY OF NEWMAN-KEULS PROCEDURE FOR MEAN COMPARISONS OF SCORES ON THE PERCEIVED BEHAVIOR MEASURE

SUMMARY OF NEWMAN-KEULS PROCEDURE FOR MEAN COMPARISONS OF SCORES ON THE PERCEIVED BEHAVIOR MEASURE

Group Means in order	Gp 4 70.64	Gp 6 73.44	Gp 2 75.08	Gp 5 75.24	Gp 3 77.60	Gp 1 77.84
70.64		2.80	4.44	4.60	6.96	7.20
73.44			1.64	1.80	4.16	4.40
75.08				.16	2.52	2.76
75.24					2.36	2.60
77.60						.24
77.84						

Truncated range r	2	3	4	5	6
q . 95 (r, 144)	2.77	3.32	3.63	3.86	4.03
q . 95 (r, 144) $\sqrt{\frac{\text{MS error}}{N}}$	5.37	6.44	7.04	7.49	7.82

	Gp 4	Gp 6	Gp 2	Gp 5	Gp 3	Gp 1

Note - None of the differences exceed the critical values.

APPENDIX H

SUMMARY OF NEWMAN-KEULS PROCEDURE FOR MEAN COMPARISONS OF SCORES ON THE TWELVE ADAPTIVE BEHAVIOR ITEMS FROM THE PERCEIVED BEHAVIOR MEASURE

SUMMARY OF NEWMAN-KEULS PROCEDURE FOR MEAN COMPARISONS OF SCORES ON THE TWELVE ADAPTIVE BEHAVIOR ITEMS FROM THE PERCEIVED BEHAVIOR MEASURE

Group Means in order	Gp 4 39.76	Gp 6 40.64	Gp 2 44.36	Gp 5 45.56	Gp 1 46.76	Gp 3 46.80
39.76		.88	4.60	5.80	7.00	7.04
40.64			3.72	4.92	6.12	6.16
44.36				1.20	2.40	2.44
45.56					1.20	1.24
46.76						.04
46.80						

Truncated range r	2	3	4	5	6
q . 95 (r, 144)	2.77	3.32	3.63	3.86	4.03
q . 95 (r, 144) $\sqrt{\frac{MS\ error}{N}}$	4.07	4.88	5.34	5.67	5.92

Gp 4	Gp 6	Gp 2	Gp 5	Gp 1	Gp 3

Note - Any 2 means not underscored by the same line are significantly different, $p < .05$.

APPENDIX I

SUMMARY OF NEWMAN-KEULS PROCEDURE FOR MEAN COMPARISONS OF SCORES ON THE EIGHT MALADAPTIVE BEHAVIOR ITEMS FROM THE PERCEIVED BEHAVIOR MEASURE

SUMMARY OF NEWSMAN-KEULS PROCEDURE FOR MEAN COMPARISONS OF SCORES ON THE EIGHT MALADAPTIVE BEHAVIOR ITEMS FROM THE PERCEIVED BEHAVIOR MEASURE

Group Means in order	Gp 5 29.68	Gp 2 30.72	Gp 3 30.80	Gp 4 30.88	Gp 1 31.08	Gp 6 32.80
29.68		1.04	1.12	1.20	1.40	3.12
30.72			.08	.16	.36	2.08
30.80				.08	.28	2.00
30.88					.20	1.92
31.08						1.72
32.80						

Truncated range r	2	3	4	5	6
q . 95 (r, 144)	2.77	3.32	3.63	3.86	4.03
q . 95 (r, 144) $\frac{\sqrt{\text{MS error}}}{N}$	3.16	3.79	4.14	4.40	4.59

	Gp 5	Gp 2	Gp 3	Gp 4	Gp 1	Gp 6

Note - None of the differences exceed the critical values.

APPENDIX J

SUMMARY OF NEWMAN-KEULS PROCEDURE FOR MEAN COMPARISONS OF SCORES ON THE COMMITMENT TO INVOLVEMENT MEASURE

SUMMARY OF NEWMAN-KEULS PROCEDURE FOR MEAN COMPARISONS OF SCORES ON THE COMMITMENT TO INVOLVEMENT MEASURE

Group Means in order	TMR Contact .68	EMR Contact .92	No Contact 1.22
.68		.24	.54
.92			.30
1.22			
Truncated range r		2	3
q . 95 (r, 147)		2.77	3.32
q . 95 (r, 147) $\sqrt{\frac{MS\ error}{N}}$		.39	.46

TMR Contact	EMR Contact	No Contact

Note - Any 2 means not underscored by the same line are significantly different, $p < .05$.

APPENDIX K

DETAILED SUMMARY FOR JOURNAL PUBLICATION

DETAILED SUMMARY FOR JOURNAL PUBLICATION

Of central importance in investigating the area of mental retardation is an understanding and awareness of the attitudes and behaviors of persons who are not mentally retarded. Although many investigators have noted the importance of exploring this topic (Michael-Smith, 1964; Crandel, 1969; Mittler, 1970), few studies have been reported. Two key variables have emerged from the studies that have been reported. The first is the distortion effect of labeling a person mentally retarded. This effect can also be conceptualized as the strength of the stereotype of mental retardation (Guskin, 1963). The second critical variable is the possible benefit of social contact with the mentally retarded in producing increased acceptance, more positive attitudes, etc.

In the case of special education classes for the mentally retarded in a public school, these two variables come together. Labels are commonly viewed as "bad", while social contact in the form of integrated classes is seen as "good". However, experimental evidence to support these contentions is lacking. Only recently, Jones (1972), in a review article, reported that there is no documentation of the extent of the problem of labels and stigma as perceived by teachers and pupils. In the only study which investigated social contact in public schools, Strauch (1970) concluded that social contact with EMR pupils did not appear to promote positive attitudes.

The labeling studies reported in the literature have compared Ss' responses to various stimuli (generally written sketches or videotapes of persons) when a label was either present or absent. Previous research

has shown that the label mentally retarded does not appear to have a distorting effect in the context of other positive information presented in a stimulus sketch (Jaffe, 1966). Studies employing videotapes of children have also demonstrated that this distortion effect is not necessarily present when Ss view the behavior of either normal children (Salvia, Clark, and Ysseldyke, 1973) or mentally retarded children (Guskin, 1962). However the label did have a distorting effect if the information in the videotape provided relevant cues to mental retardation (Guskin, 1962) or was believable for a particular child (Salvia, et al., 1973). Guskin (1963) has also reported that, when using various stimulus sketches, a label had a distorting effect only when the other information contained in the sketch facilitated a distortion.

The results of investigations looking at social contact with the mentally retarded have been equivocal. Sociometric studies have consistently shown that EMR pupils occupy a low social position in the public school (Lapp, 1957; Rucker, 1967; Rucker, Howe, and Snider, 1969). Hall (1972) reported that contact with institutionalized mentally retarded persons resulted in negative shifts in attitude when using a pre- and post-test design. On the positive side, there is evidence that certain kinds of contact do correlate with increased acceptance of the disabled (Yuker, Block and Younng, 1970) and with more positive attitudes toward the mentally retarded (Harrelson, 1970; Morin, 1969).

The purpose of the present investigation was to explore the effects of labeling and social contact with the mentally retarded from the perspective of normal peers in public schools. Several considerations

pointed to the need for such an investigation. First of all, to the best of the author's knowledge, this is the first time the labeling and contact variables have been explored in a factorial design which permitted an analysis of interactive effects. Secondly, not a single study investigating social contact with both EMR and TMR pupils is available. Thirdly, the author felt it was important to assess results by means of several dependent variables which incorporated not only general attitudes toward the mentally retarded, but also a measure of how Ss perceived the behavior of a person labeled mentally retarded, and a measure of the extent to which Ss were willing to commit themselves to involvement and interaction with mentally retarded persons.

It was hypothesized that the label mentally retarded would result in a significant decrement in Ss' responses in comparison to a person not so labeled, but that this labeling effect would vary as a result of the previous contact Ss had with mentally retarded students in special education classes. It was also predicted that Ss having contact with EMR pupils would have more positive responses than Ss having contact with TMR pupils, who would in turn be more positive than Ss having no contact with any special education classes. Similarly, it was predicted that the degree of commitment to involvement with mentally retarded students from special education classes would be greater for Ss having contact in school with mentally retarded students in comparison to Ss having no contact with mentally retarded students in their school. Finally, it was hypothesized that those Ss who had the most positive attitudes toward the person labeled mentally retarded would commit themselves to the highest degree of involvement with the mentally retarded.

METHOD

Design and Procedure

Figure 1 provides a graphical representation of the basic design of the study. The design used was a 2 x 3 factorial (A X B) design. The effect of labeling was designated as the A effect, while the contact variable was called the B effect. Subjects came from three separate schools. Thus, for the B effect, subjects were first divided on the basis of the type of contact with special education pupils that was provided by their school, i.e., contact with EMR pupils, contact with TMR pupils, or no contact with special education class pupils).

Insert Figure 1 about here

Next, one-half of the Ss within each of these three contact groups were randomly assigned to one of the two levels of A. In the control condition (A_1), Ss responded to a sketch of a twelve-year-old boy. Groups 1, 3, and 5 represent the three contact groups who responded to the person in the control condition. Subjects in the labeling condition (A_2), responded to an identical sketch of a twelve-year-old boy with the added information that he attended special education classes for the mentally retarded. Groups 2, 4, and 6 represent the three contact groups who responded to the person in the labeling condition.

Since all subjects received the commitment to involvement measure, the last part of the study can be seen as a simple-randomized design (Lindquist, 1953) in which differences in responding were analyzed for the three contact groups.

Type of Contact (B)	Stimulus Person (A): Control Condition (A_1)	Stimulus Person (A): Labeling Condition (A_2)
EMR Contact (B_1)	Group 1	Group 2
TMR Contact (B_2)	Group 3	Group 4
No Contact (B_3)	Group 5	Group 6

Figure 1. Basic Design of the Study.

Stimuli

As has been recommended by Jaffe (1966), the stimulus used to elicit Ss' responses was a written sketch and not just a single word or label. This model allows E to control the type and amount of information given about the person. It was believed that the most realistic situation was one in which the stimulus person was presented as having a combination of both positive and negative characteristics, with neither being predominant. Accordingly, a sketch of a twelve-year-old boy was developed which was similar to Jaffe's (1966) original sketch of a twenty-four-year-old man, but contained less positive information that could be viewed as inconsistent with the label mentally retarded. An identical sketch without the label was used as a control.

The sketch is provided below:

> Tom Randall, a twelve-year-old boy, is of average height and weight. He attends (a local Missoula school/ special education classes for the mentally retarded). He has one sister and one brother. Like many boys Tom's age, his mother describes his behavior in this way: "When he is good he is very good, but when he is bad he is terrible." Tom presents a neat appearance. Although he has his share of problems, things seem to be going all right for him.

Subjects

Three schools encompassing students of comparable socioeconomic backgrounds were selected for the study. The majority of the students' families in these schools were working class families. One of the schools held only EMR classes, the second school held classes for students on a TMR level, while the third school has never held special education classes in its building.

Contact in the school where EMR classes were held included the opportunity to eat lunch together, shared recess and lunch breaks on the playground, shared music classes, participation in all-school events (attendance at plays, concerts, sporting events, etc.) and participation in extra-curricular activities (primarily student council and sports). The kind of contact at the school where the TMR classes were held was similar to the contact at the school with EMR pupils, except that TMR pupils did not participate in music classes or extra-curricular activities.

Subjects were fifty seventh and eighth grade students from each of the respective schools. In each school, twenty-five Ss were randomly assigned to either the control condition or the labeling condition. Thus, six groups of twenty-five Ss, or a total of 150 students participated in the study. Approximately thirty Ss were randomly omitted from both the EMR contact and no contact groups in order to achieve an equal n's design. The mean age of the Ss in the six groups ranged from 13.10 to 13.72, with the mean age of the entire sample being 13.41.

Measures

Because of the complexity of Ss' responses and the possibility of significant results being confounded with some unique characteristics of a particular measure, the following four dependent variable measures were used:

1. Semantic Differential Evaluative Factor (Osgood, Suci and Tannenbaum, 1957). Eleven pairs of adjectives that were factor-analyzed by Jaffe (1966) and found to be significantly loaded

on the Evaluative factor were used. They were the following: Valuable - Worthless, Clean - Dirty, Tasteful - Distasteful, Warm - Cold, Deep - Shallow, Easy to get along with - Hard to get along with, Self-reliant - Dependent, Neat - Sloppy, Not dangerous - Dangerous, Employable - Unemployable. The format used was a six-point scale with fixed polarity.

2. Semantic Differential Strength-Activity Factor. Four scales were found to be significantly loaded on this factor according to Jaffe's (1966) factor analysis. They were: Active - Passive, Large - Small, Strong - Weak, Independent - Suggestible.
3. Perceived Behavior Measure. For the purpose of investigating how normal peers perceived the behavior of a person labeled mentally retarded, 20 behaviors were selected from the Adaptive Behavior Scale (Nihira, Foster, Shellhaas, and Leland, 1969), a behavior rating scale for mentally retarded and emotionally maladjusted individuals. On a six-point scale, Ss indicated how sure they were that the person performed each behavior. The behaviors included twelve adaptive behaviors and eight maladaptive behaviors and are described in another report (Cook, 1973).
4. Commitment to Involvement Measure. This measure was designed by the author to give subjects a chance to show their desire for interaction with mentally retarded children from special education classes in what was portrayed as a realistic situation that would actually happen in the future. Commitment to a course of action is a form of self control (Skinner, 1953) which has recently gained increasing importance in the study of

self-regulation of behavior (e.g., Rachlin, and Green, 1972). Thus, the commitment variable would seem to be of critical importance in understanding how Ss would manage their own behavior in interacting with the mentally retarded. Accordingly, Ss were given the opportunity to volunteer to work with mentally retarded children from special education classes and responded on a four-point scale ranging from not volunteering (scored 0), to volunteering once or twice a year (scored 1), once a month (scored 2), or once a week (scored 3).

Administration

The stimulus person and the dependent variable measures were compiled into a booklet and administered under standardized directions to an entire class at a time by the author. By randomly ordering the booklets, one-half of the students in each class received the sketch of the person who was labeled mentally retarded and the other half of each class received an identical sketch without the label. Each person rated only one of the sketches.

It was important to determine if those students in the non-contact school had had an appreciable amount of contact with mentally retarded persons from other situations, e.g., home, neighborhood or relatives. Also, it was not known if there were a significant number of students in the non-contact school who had transferred from schools that did have special education classes in their building. Finally, it was important to determine if the students in the two contact schools actually did know their fellow students in the special education classes. Therefore, the following two questions concerning these topics concluded the student survey booklet:

1) Do you know any children who are mentally retarded? (Yes or No)

2) Have you ever gone to a school in which there was a special education class for the mentally retarded? (Yes or No)

To insure that Ss would think that they were actually volunteering and would be contacted concerning the commitment to involvement measure, Ss signed their names to this section. Afterwards the students were debriefed and informed that the study was an experiment and they would not actually be contacted for volunteer work. The importance of knowing how many students would volunteer if they actually thought they would be contacted was explained. The rest of the experiment was also explained. The Region I Residential Center of Missoula, Montana, which was at that time a group home for 5 TMR children (ages 6-10), was made available to students who were very interested in doing volunteer work. Students were told that this center could accomodate only a limited number of volunteers. Two students from each school (5 girls and 1 boy) actually participated as volunteers.

RESULTS

A summary of the group means and standard deviations is provided in Table 1. The general hypotheses concerning labeling and contact were tested by computing a separate analysis of variance (ANOVA) for each of the dependent variable measures (Table 2). Since differential responding was observed for the adaptive and maladaptive behaviors of the perceived behavior measure, this score was analyzed first as a total score and then

as two component scores. The results were very consistent and revealed a significant main effect due to labeling and a significant Label X Contact interaction for both factors of the semantic differential and the perceived behavior measure. The labeling effect was in the predicted direction. Thus, on the average, the responses of the three groups in the control condition were significantly more positive than the responses of the three groups in the labeling condition. The significant interaction indicated that the effect of the label varied with the type of contact Ss had experienced. While the same significant labeling effect and Label X Contact interaction were found for the adaptive behaviors of the perceived behavior measure, there were no significant results for the scores pertaining to maladaptive behaviors.

Insert Tables 1 and 2 about here

A Newman-Keuls (Snedecor and Cochran, 1967) procedure was employed to specify the locus of the differences among the means of the six groups. The results of the Newman-Keuls procedure revealed that there were no significant differences between any of the three contact groups in the labeling condition as had been predicted.

The Newman-Keuls procedure also provided some other useful information. For the semantic differential Evaluative factor and the perceived adaptive behavior measure, a significant labeling effect was present in the school which had contact with TMR pupils (group 3 vs. group 4) and in the school where there was no contact (group 5 vs. group 6). Since no significant

TABLE 1

SUMMARY OF MEANS AND STANDARD DEVIATIONS FOR THE SIX GROUPS

Group	Evaluative Factor (neutral pt = 38.5)		Strength-Act Factor (neutral pt = 14.0)		Perc Behav Measure (neutral pt = 70.0)		Perc Adapt Behavior (neutral pt = 42.0)		Perc Maladapt Behavior (neutral pt = 28.0)	
	M	SD	M	SD	M	SD	M	SD	M	SD
1 (EMR Cont + control)	48.04	4.72	16.68	2.15	77.84	9.00	46.76	5.99	31.08	6.96
2 (EMR Cont + label)	45.72	3.92	15.72	2.03	75.08	9.24	44.36	7.05	30.72	4.19
3 (TMR Cont + control)	49.32	5.86	16.80	2.95	77.60	10.00	46.80	6.92	30.80	6.72
4 (TMR Cont + label)	43.72	6.07	15.40	2.00	70.64	10.10	39.76	10.20	30.88	5.52
5 (No Cont + control)	48.08	5.78	16.40	2.10	75.24	10.34	45.56	7.95	29.68	5.31
6 (No Cont) + label)	43.52	7.90	15.56	2.43	73.44	11.04	40.64	8.84	32.80	5.27

TABLE 2

SUMMARIES OF ANALYSIS OF VARIANCE FOR THE DEPENDENT VARIABLES

	Evaluative Factor			Strength-Activity Factor			Perceived Behavior Measure		
Source	df	MS	F	df	MS	F	df	MS	F
Labeling (A)	1	648.96	21.86**	1	42.66	8.51*	1	552.95	5.84*
Contact (B)	2	15.12	.51	2	.61	.12	2	83.49	.88
A X B	2	374.72	12.62**	2	23.03	4.60*	2	454.11	4.80*
Within	144	29.69		144	5.01		144	94.64	

	Perceived Adaptive Behavior			Perceived Maladaptive Behavior			Commitment to Involvement		
Source	df	MS	F	df	MS	F	df	MS	F
Between(Contact)							2	3.66	3.10*
Labeling (A)	1	859.20	15.95**	1	33.60	1.03			
Contact (B)	2	94.02	1.75	2	2.33	.07			
A X B	2	591.07	10.97**	2	64.02	1.96			
Within	144	53.88		144	32.71		147	1.18	

* $p < .05$
** $p < .001$

differences were found between the two groups in the school in which there was contact with EMR pupils (group 1 vs. group 2), it was concluded that a significant labeling effect did not take place in this school for these measures.

A tacit assumption in the design of this experiment was that the three contact groups in the control condition (groups 1, 3, and 5) would not differ significantly from one another. This assumption was borne out on all of the measures used in this study. Thus, the students in all three schools tended to perceive the person in the control condition in approximately the same way.

For the semantic differential Strength-Activity factor, the perceived behavior measure and the perceived maladaptive behavior measure, the Newman-Keuls procedure revealed no significant differences between any pairwise comparisons of the six means. Thus, for these three measures, there was a significant labeling effect and Label X Contact interaction when all six group means were included in the ANOVA, but no pair of means were significantly different using the Newman-Keuls procedure.

It had been hypothesized that those students who had had contact with mentally retarded pupils in school (groups 1, 2, 3, and 4) would score higher (i.e., have a more positive commitment) on the commitment to involvement measure in comparison to no contact normal peers (groups 5 and 6). The results of a t-test indicated that there was a significant difference between the contact and the no contact groups ($t = 2.10$, $p < .05$), but since the no contact group (mean = 1.22) had a more positive commitment to involvement than the contact groups (mean = .80), this difference was not in the predicted direction.

This was a surprising result. Accordingly, an analysis of variance and a Newman-Keuls procedure were employed to specify more clearly the differences among the three contact groups. A one-way ANOVA (see Table 2) showed that there was a significant difference between the three groups ($F = 3.10$, $p < .05$). The Newman-Keuls procedure for mean comparisons revealed that Ss having no contact with mentally retarded pupils in school (mean = 1.22) were significantly more positive on the commitment to involvement measure than Ss having contact with TMR pupils (mean = .68). Ss having contact with EMR pupils (mean = .92) did not differ significantly from the other two groups.

The percentage of Ss volunteering was 46% of the EMR contact group, 40% of the TMR contact group, and 60% of the no-contact group. Forty-nine percent of the 150 Ss in the total sample volunteered on this measure.

The hypothesis concerning the relationship between expressed attitudes and commitment to involvement was tested by computing a Pearson product-moment correlation coefficient. For this analysis, all seventy-five Ss who had rated the person labeled mentally retarded were put into one group. The correlation coefficient, r, which related expressed attitudes and commitment to involvement was found to be in the predicted direction, but not statistically significant ($r = .11$, $p > .30$).

Supplementary Analyses

The results of responding to the last two questions concerning contact indicated that in the two schools which had special classes, the proportion of subjects who reported that they knew someone who was

mentally retarded was 83%. For the school which had no special classes, the proportion who knew a mentally retarded person was 54%. A z value for testing the difference between these two proportions was found to be significant ($z = 7.25$, $p < .01$). Thus, it appeared that going to a school where there were mentally retarded pupils significantly increased the likelihood that Ss would know someone who was mentally retarded.

However, since a large number of Ss in the non-contact school did report having contact with mentally retarded persons outside of school, an attempt was made to dichotomize the 75 Ss who rated the person who was labeled mentally retarded into two groups: those reporting contact ($N = 61$) and those reporting no contact ($N = 14$). T-tests to compare the means for all five dependent variables revealed no significant differences between the contact and no contact group. However, this analysis was probably hampered by the small number of Ss in the no contact group.

Sex Differences

In organizing the data from the commitment to involvement measure, it was seen that very few boys were volunteering in comparison to girls. Accordingly, this hunch was checked. For the entire sample, the proportion of males volunteering was 37% as compared to a female volunteering rate of 61%. This difference was significant ($z = 3.0$, $p < .05$). Similarly, the overall mean of the boys for the commitment to involvement measure was .72 as compared to 1.18 for the girls. This difference was also significant ($t = 3.29$, $p < .01$). However, further comparisons revealed that these overall effects for the entire sample were due to an extremely low rate of volunteering at one school (EMR contact group) and

a non-significant trend whereby boys were slightly lower than girls at the other two schools.

Because differences in responding between males and females had not been predicted, it was decided that possible differences on the other measures should also be investigated. Since hypotheses regarding male-female differences were not planned before the experiment, two-tailed t-tests were employed to analyze the largest differences. The results showed that males differed significantly from females in only one group on one measure, and in this case, males were more positive. However, since the three major dependent variables involved 36 means and 18 comparisons, a significant difference on the basis of chance alone would be expected 1 out of 20 times. It was therefore concluded that differences between the sexes on all of the measures except the commitment to involvement measure were essentially random.

DISCUSSION

In discussing the results of this study, a distinction must be made between interpretations of the two factors. The A factor (influence of labeling) involved a straightforward experimental design which manipulated an independent variable (presence or absence of a label) in order to see the results. The B factor (type of contact), on the other hand, involved a *post hoc* situation wherein the experimenter attempted to measure after the fact. Thus it will be seen that more caution was needed in interpreting the B factor, and any implications reached about the value of contact in enhancing attitudes or behaviors toward the mentally retarded should be seen as tentative ones.

It seemed apparent in this study that, on the average, having the added information that a person was in special education classes for the mentally retarded caused a decrement in Ss' responses on the dependent variables. Thus, the attitudes expressed toward the person who was labeled mentally retarded were less positive than the attitudes expressed toward the person in the control condition. Similarly, Ss also perceived the behavior of the person labeled mentally retarded to be less positive than the person not so labeled. However, several qualifications are necessary to understand this phenomenon. First of all, while the trend was consistent for all three schools on all three measures, the various group comparisons revealed that the labeling effect was not all pervasive. There was no labeling effect for the group which had contact with EMR pupils, And, for the TMR contact group, and the no contact group, a significant labeling effect was found only on the semantic differential Evaluative factor and the perceived adaptive behavior measure. For the Strength-Activity factor, the perceived behavior measure, and the perceived maladaptive behavior measure, differences in responding to the persons in the control and the labeling conditions were so small that they were significant only for the average of the three groups responding and were not characteristic of any particular groups as demonstrated by a Newman-Keuls procedure for comparing group means. Furthermore, while the label did cause less positive responses, the scores on the dependent variables were consistently above the neutral point of each scale for the person labeled mentally retarded. Only when the perceived behavior measure was broken down into adaptive and maladaptive behaviors, did the mean scores for any measure fall below the neutral

point for the person labeled mentally retarded. Since level of adaptive behavior is a criterion for defining the mentally retarded (Heber, 1961), the author felt it was realistic for Ss to attribute differences to the person labeled mentally retarded on this measure. Apparently Ss could perceive these differences without devaluing the person on the attitudinal measures or on the measures for maladaptive behaviors. In this context, it appears that the person who was labeled mentally retarded was perceived realistically and positively, although not as positively as the person in the control condition.

Since a significant labeling effect did not take place in the school where there was contact with EMR pupils, it is tempting to conclude that contact with EMR pupils in school results in more positive attitudes toward the mentally retarded than does either contact with TMR pupils or no contact. However, the Newman-Keuls comparisons revealed no significant differences between these three groups in responding to the person labeled mentally retarded. All that can be said is that there was a non-significant trend whereby those students having contact with EMR pupils had more positive responses than the other two groups, and that there was no significant labeling effect in the school where students had contact with EMR pupils.

The results of the present study showed that a labeling effect could take place even with a stimulus that was neither predominantly positive nor negative. Strong support was provided for the recent finding by Salvia et al. (1973) that a stereotype is retained if the label is believable in the total context. The stimulus used in the present study

gave no information that was dissonant with mental retardation. In that sense, then, it was clearly believable.

Also, the present study extends our information about labeling to a new subject group. The subjects in this study were the youngest ever to participate in an experiment involving labeling. Previous studies have consistently used university undergraduates or high school seniors. Results with the younger subjects of this study were similar to those of the older subjects. However, studies of younger children (grades 1-6) and adults over 30 are completely lacking and should be carried out in the future.

Interpretations of the contact variable are difficult. The results of the present study support Strauch's (1970) conclusion that contact in school with the mentally retarded is not, of and by itself, sufficient to influence more positive attitudes toward the mentally retarded. Since Strauch's was the only other study done in this regard, it was important to replicate his findings. However, future studies must take account of the fact that contact in school is confounded with contact from other situations. Fully 54% of the students in the non-contact school of the present study reported that they knew someone who was mentally retarded. While this porportion <u>is</u> significantly lower than the proportion for students in the contact schools (83%), it could easily account for a blurring of any possible differences attributable to contact.

In terms of the labeling effect only, contact with the more severely retarded TMR pupils produced the same results as no contact at all. The results of the commitment to involvement measure were even more strikingly

paradoxical as far as contact is concerned. Contrary to predictions, the most positive level of commitment to involvement was found in the no contact group, while the students having contact with TMR pupils were significantly lower than the no contact group. Several interpretations are possible. Perhaps contact with TMR pupils was aversive and discouraged further contact. Or, perhaps the students having contact with TMR pupils had already had ample opportunity for involvement, even to the point of satiation, whereas this would be a novel and unique experience for the no contact group. Also, since the contact variable was a post hoc design, it is possible that differences in responding by the TMR contact group were due to a totally unrelated cuase which was unknown to the author, such as the religious background of the three contact groups.

It is also difficult to know why there was a very significant difference at one school between rates of volunteering on the commitment to involvement measure for males vs. females. Males were significantly lower than females at the school where there was contact with EMR pupils. It is conceivable that volunteering could be affected by developmental differences between males and females, but this would not explain why the phenomenon was present at only one school.

At any rate, it does seem that the commitment to involvement measure was measuring something distinct from the other measures. It correlated only mildly with expressed attitudes ($r = .11$) and could have been affected by a host of other variables such as novelty of the required task, differences between males and females or prior history of the subjects. The results suggest to this author that the paper-and-pencil measures

which have been so common for measuring subjects' attitudes, beliefs, behaviors, etc., may not correlate very highly with actual overt behavior. Certainly, there is a clear need for controlled studies investigating subjects in interaction with the mentally retarded. The consistent trend for Ss having contact with TMR pupils to have more negative responses than Ss having contact with EMR pupils suggests that further studies in this area should also be done.

Whereas social contact with special education class students in school is commonly believed to be beneficial for both special class pupils and their normal peers, evidence demonstrating these benefits for the normal peer group is lacking at this time. It is not the author's contention that the benefits of social contact are nonexistent. However, further research is necessary to show how to effectively implement social contact in order to reap these benefits.

In this regard, an additional finding seems particularly worthy of note. For the entire sample, 73 out of 150, or 49% of the Ss volunteered to commit themselves to some form of involvement with the mentally retarded. This is a very large percentage for this kind of task. It shows that a large number of young adolescents are interested in the mentally retarded and want to become involved with them. Perhaps this finding can best be understood in the context of self-control. Forty-nine percent of the Ss opted for a commitment strategy which would allow them to interact with the mentally retarded. The conceptualization of reversals of preference over time offered by Rachlin and Green (1972) would posit that when the time for attending an activity with the mentally retarded was

actually at hand, other activities such as football games, dances or parties might have more appeal. Without a commitment strategy, there might be little contact with the mentally retarded. However, persons who make a definite commitment to involvement with the mentally retarded have a strategy which allows them to manage their own behavior in order to offset such possible reversals of preference. This model may have definite application for increasing contact between normal peers and the mentally retarded. One of the greatest challenges facing professionals in the field of special education is to mobilize the positive interest of normal peers towards the mentally retarded in such a way that both groups benefit from the interaction.

It appears that there are three important directions to consider in order to uncover meaningful information about the influence of contact. Strauch (1970) has discussed the importance of developing and evaluating strategies which plan social contact in schools according to the suggestions of social psychologists (e.g., Allport, 1954). In this context, it is not the presence or absence of contact, but the quality of the contact which is the prime determinant of its effectiveness. Contact which promotes common goals and joint interests is seen as most beneficial. There is some evidence that this technique can be successful. Chennault (1967) was able to increase the acceptance of unpopular EMR pupils by having them work together with popular EMR pupils in a common task. This strategy still needs to be applied to mentally retarded pupils and normal peers.

A more all-encompassing kind of research would be to randomly assign naive subjects (i.e., those who have had no appreciable contact with the

mentally retarded) to controlled contact conditions that involve qualitatively different kinds of contact with persons from each of the major levels of mental retardation. For example, one kind of contact might be warm and affectionate, another would be task-oriented, a third could be a teaching situation, etc.

The third important direction for future research would be the development of behavioral indices of acceptance as an alternative to the paper-and-pencil techniques now used.

These suggestions could also be helpful in further research with labeling. The results of the present study suggest that the label mentally retarded can have a distorting effect, but that with certain kinds of contact, such as contact with EMR pupils in school, this distortion may become minimal. Thus, one criterion for evaluating different kinds of contact would be to investigate each one's potential for minimizing the stigma usually associated with the stereotype.

It is suggested that further research into the effects of labeling would do well to employ sketches which provided detailed information regarding certain specified behavioral areas. This information could be systematically varied so that the various sketches described both persons with high levels of competency in these areas, and also persons with lower levels of competency. This kind of paradigm would permit two separate kinds of studies.

In the first kind of study, one group of Ss could rate a person with an average level of competency, while a second group rated a person with a lower level of competency, and a third group rated the person with the

low level of competency with the added information that the person was mentally retarded. Since the real differences between the two levels of competency would be clearly spelled out, such a study should permit a rigorous test of the assumption that a mentally retarded person can be perceived realistically and still not be devalued because of being mentally retarded. The author feels that it is an important goal for professionals in the field of mental retardation to be able to impart a realistic understanding of the mentally retarded in terms of their assets and deficiencies without a concomitant devaluing of the worth of the person. Studies like the one outlined above could begin to tell us to what degree, if any, the distortion effect of the label mentally retarded would interfere with this goal.

A second type of study in this regard could investigate the labeling effect for each particular level of competency. For example, since the label mentally retarded should not be believable for a person with a high level of competency, then it would be predicted that there would not be a labeling effect in this case. Alternately, if the control sketch described a person with a low level of competency, then a labeling effect would be predicted to occur. Studies in the second category could provide strong confirmation for the conclusions which have been made in the labeling research, viz., that for a labeling effect to occur the stimulus context must provide either relevent cues to mental retardation (Guskin, 1962), facilitate distortion (Guskin, 1963), or present information which is believeable for the label that is applied (Salvia, et al., 1973).

Certainly, further research with labeling must also investigate other subject populations outside of schools. What subtle changes in acceptance take place for example when parents are first told that their child is "mentally retarded"? Or what happens in a neighborhood when a child who was perceived as "a little different" is given the label "mentally retarded"? Perhaps a label can have positive effects as when our fear of a person who behaves very differently from ourselves is quieted by the knowledge that he is mentally retarded, and not therefore innately dangerous. It is even possible that simply by understanding the process of labeling better, persons will be better able to look beyond the stereotype.